AN ARGUS SPECIALIST PUBLICATION
No.92
Dec 11-17, 1984
45p

HOME Computing WEEKLY

Swot spot Six-page educational extravaganza for VIC-20 and CBM 64

More sales to plummet?

[illegible]

Dozens of reviews for: BBC, Spectrum, CBM 64, Amstrad CPC464, Electron

VIC-20 authors: Helpful hints for your own programs

Great games to type in for Atari, VIC-20, Oric/Atmos, ZX81, Spectrum

Commodore 64 Character study Look closely at your pixels

Plus: news, your letters, charts. . .

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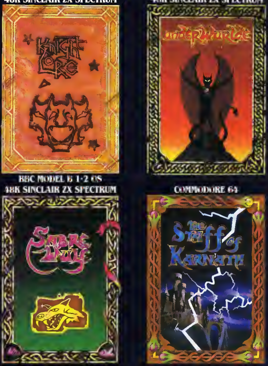
BBC MODEL B 1-2 OS
48K SINCLAIR ZX SPECTRUM

COMMODORE 64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Sabre Wulf
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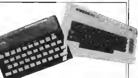
HOME COMPUTING WEEKLY
BRITAIN'S BRIGHTEST



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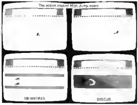

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From front page

developed to cope with the new family interest.

"It's rather like the video industry," said Ms Mason. "There is a trend away from feature films towards educational and home interest programs. There's a dearth of leisure programs and that side of the business must be developed."

She continued: "It's really a chicken and egg situation. Which comes first, the software or the broader base of users? There's currently a hiatus: there are lots of good games, some educational software, but nothing for leisure."

Although less computers will be bought, a larger proportion of the UK population will have access to a micro. "You see, there is a difference between the growth in ownership, which is a cumulative figure, and the rate of annual deliveries," explained Ms Mason. "The market is gradually extending beyond families with teenage children, and 1984 will probably be the year when the largest number of new households will buy their first machine. However, we do see users upgrading."

Media Leisure isn't a market research survey. It's a compilation of the results of all types of surveys, interpreted into a view of the leisure market and a forecast of future trends, related to social and economic factors.

One conclusion is that our total spending on leisure — which comprises one third of all consumer spending — is growing, as is our total leisure time.

Media Leisure is available from W H Martin, Leisure Consultants, Lint Growis, Foxearth, Sudbury, Suffolk. Price £210.

Night on the town

Ariolasoft recently took over the Hippodrome night club, in central London for a massive launch for a new range of products. Barry Norman participated in the presentation, while Tommy Vance did a voice-over for the detailed preview of all the games.

Twelve titles have been imported from the States, and titles such as Choplifter! One-on-One, Realm of Impossibility, Archon and MULE have been American chart-toppers. Broderbund and Electronic Arts are the well-known names behind the games.

Distributed by CBS, Ariolasoft has all the resources of a big corporation to back it in its venture into the software industry. Big promotional and advertising spends are on the cards.

While the initial range is for the Commodore 64, other machines will be catered for in the New Year.

Ariolasoft is a subsidiary of the German publishing group Bertelsmann, and sister company is Arista records. Ashley Gray, managing director, said: "Our aim is to release only high performance programs to satisfy consumer demand for quality software. We intend to market them using techniques new to the computer software retailing business."

Ariolasoft, Asphalte Hse, Palace St, London SW1

Lionheart from Bubble Bus

Amidst all the doom and gloom of announcements of failing software houses new companies are still being set up. One such is Lionheart/ Mark Meakins, co-founder of Bubble Bus Software in Tonbridge Wells, has sold his shares to establish his new company.

Lionheart is using freelance programmers and the first games are scheduled for release in January, on the Amstrad CPC464, Commodore 64 and C16.

"The parting from Bubble Bus was extremely amicable," said Mark Meakins. "But I have different ideas for the new company, which include special marketing techniques and new types of games. There's definitely a market for new software houses if they have the right ideas."

Lionheart, 29 The Boundary, Langton Green, Tonbridge Wells, Kent TN3 0YA

Elite for Spectrum

British Telecom's software arm, Firebird, has bought Elite, Acornsoft's top-selling space game, for conversion to Z80 machines. Currently on the BBC, Elite will be available in Spectrum from within five months, according to Firebird.

Elite will appear on the Firebird Gold label and will probably retail for £14.95, the same as Acornsoft's version.

Marjacq Micros, representing the two programmers, Ian Bell and David Braben, invited sealed bids for non-Acorn micros.

Firebird Gold is BT's upmarket label and an Amstrad version is likely to follow.

Firebird, Second Floor, Wellington Hse, Upper St Martins Lane, London WC2H 9DL

Fruit machine

Fruity is a hi-res fruit machine simulation for the Dragon. Originally sold under a licencing agreement by Dragon Data, Impsoft is now taking over the title.

Holds, nudges and gamble wins are features of this game which costs £4.95.

Impsoft, 149 Balham Hill, London SW12 9DJ

Bubble Bus duo

Tazz and Strike Force are two new releases for the Commodore 64 from Bubble Bus. Both cost £6.99.

In Tazz you are isolated in a room, with the walls closing in on you. A collection of monsters are after you. If you get through this room you move on to the next — there are 20 rooms — and as you may expect, the monsters become more and more unsavoury.

Strike Force is a war game: you control a BB gun and you must eliminate reconaissance helicopters, while defending yourself after enemy bombers, fighter escorts and armoured cars.

Bubble Bus, 87 High St, Tonbridge, Kent TN9 1RX

Mythic game

The legend of Tristan and Isolde will shortly be available on your computer.

CRL is releasing a graphic adventure based on the story, and it should be in the shops mid-December.

To outline the myth briefly: Tristan and Isolde are two hapless lovers. Isolde is betrothed to King Marke of Cornwall, and the couple decide to commit themselves to eternity by taking a death potion together. However, Isolde's maid substitutes a love potion, so they are foiled.

King Marke banishes Tristan to Brittany, where Isolde meets him and they die together.

CRL's version was written by a 21-year old student at Heidelberg University, Germany. At £8.95, the purchase price includes a booklet.

CRL, CRL Hse, 9 Kings Yd, Carpenter's Rd, London E15 2HD

Fly and Fight

Flyer Fox is a new game for the commodore 64, on cassette and disc. For one player, it's a 3D fight combat game with software generated speech.

Cassette costs £9.95 and disc costs £14.95.

Tymac, Nettleton Hse, Calthorpe Rd, Edgbaston, Birmingham B15 1RL

Check MSX

Now on MSX Superchess, from Kuma. This is the latest in Kuma's range for the MSX, and it's a seven-level game.

Analyse mode and Recommended Move are helpful features, while Help mode will get you out of a tricky situation. The Help mode supplements written instructions which are supplied with the program.

Jon Day, sales manager, said: "It's a sure winner. Superchess will confirm once again our place at the forefront of the MSX software houses."

Price £8.95

Kuma, 12 Horseshoe Park, Horseshoe Rd, Pangbourne, Berks RG8 7JW

Monty's author joins QS

Author of Potty Pidgeon and Monty Mole, Tony Crowther has set up a deal with Quicksilva giving exclusive rights to his next two games.

One will be released before Christmas, while the second game is still in preparatory stages and no launch date has been announced.

Quicksilva, 13 Palmerston Rd, Southhampton, Hants

Four for Fun

A and F four-packs for the BBC/Electron are currently available and are aimed at the Christmas and post Christmas market

Costing £14 95 — about half the full recommended retail price for four games — the packs contain Cylon Attack and Chuckie Egg. BBC versions include Haunted Abbey and 180 Darts, while Electron copies feature Kamikase and Pharaoh's Tomb

A&F, Unit 8, Canalside Ind Est, Woodbine St East, Rochdale, Lancs OL16 5LB

Video teach-in

If you have both a computer and a video recorder in your home, you may be interested in Computer Television's Easy Microcomputing. It's a 78 minute video which aims to educate in layman's terms

Chris Serle is the presenter, and he takes you through the first steps of computing. Topics covered include the basics, why computerise? how to select, and specific applications

Chris Serle aims to put the viewer at ease and refrain from baffling him or her with technical jargon

Computer Television has liaised with a number of well-known companies to produce the video. These include Sinclair Research, Prestel, Micropro International, Future Computers, Comshare, Business Operating Systems, Brother Office Equipment and Braid. These companies provided financial support and expertise

You can buy Easy Microcomputing at W H Smith and other high street shops. It costs £19 95

Computer Television, 9 Cavendish Square, London W1

Atari push

"Masses not the classes" is how Atari boss Jack Tramiel described his pricing strategy, as slashed prices for the 800XL were announced

The top-of-the-range computer is down from £169 to £129 99, and Jack Tramiel was speaking in pure Fleet St cliches.

"I place my money where my mouth is," he said. "Since I acquired the Atari Corporation in July, prices of our computers have been nearly halved. As Henry Ford said before me, 'For every dime you remove from the cost pyramid a whole new stratum of buyers are revealed.'"

"Manufacturing advances in producing high technology products mean that prices should be tumbling," he said. "Home computers are now going through the same stages of marketing evolution which affected pocket calculators five years ago."

Atari, Atari Hse, Railway Terrace, Slough, Berks SL2 5BZ

Toshiba plus three

The Toshiba HX 10 is the most widely available MSX computer at this stage, and Toshiba has announced that it is extending the offering a three-year guarantee on the computer instead of the normal one-year term

Toshiba's MSX is a 64K machine, costing £279 99. Included in that price are three cassettes: Ocean's Hunchback, CDS French is Fun and Software Projects' Manic Miner

Chris Greet, Toshiba product manager, said: "There are currently about 150 titles available for the MSX. At Toshiba we've got very good distribution and we're in with most major multiples. So far we're fairly pleased with the way it's going."

CDS managing director Giles Hunter said: "I'm sure Toshiba chose French is Fun to demonstrate that good educational programs are available for MSX, together with a wide range of games."

CDS has also released Spanish is Fun, German is Fun and Italian is Fun for the MSX system. Each will cost £7 95.

Toshiba, Toshiba Hse, Frimley Rd, Frimley, Camberley, Surrey GU16 5JJ
CDS, Silver Hse, Silver St, Doncaster, S Yorks DN1 1HL

Gaad news, Aquarians!

The Aquarius computer has very little software. That situation is being remedied with the launch of 30 new games from Add on Electronics

Arcade games such as N Vaders, Ed-On, Grid Bug, Phrogger, Chuckman, D Fenders, Pac Man, Hobo-Express, Grasshopper Bridge and World Cup Football will cost £5 95 each. Add-on Electronics is also bringing out seven new games packs, also at £5 95

Add on Electronics, Units 3 & 4, Shire Hill Ind Est, Saffron Walden, Essex CB11 3AQ

MSX
FRENCH IS FUN

Toshiba HX-10 with bundled software

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It's a hard slog

The Jewel of Power is the latest adventure game from Slogger Software Your success depends on intellectual rather than physical strength, according to Slogger

Your first task is to find out why you are in the Land of Wye Your life is in danger and hazards and hostile enemies abound Rely on your reasoning to solve the mysteries

The Jewel of Power runs on the Spectrum and costs £9 50

Slogger, 215 Beacon Rd, Chatham, Kent ME5 5BU

Board silly?

New for the MSX — Boardello from Bubble Bus Played by one or two competitors, it is said to be based loosely on the old board game, Othello

There are several levels of difficulty and the size of the board can be altered Cost £6 99

Bubble Bus, 87 High St, Tonbridge, Kent TN9 1RX

Prices slashed

CheetahSoft has announced it will be introducing all new software at a reduced price — £2 50 And existing software will also bear the £2 50 price tag

Previously restricted to higher prices by licensing deals with American companies such as Imagic, CheetahSoft has now established new agreements which enable the company to bring its prices down

Howard Jacobson, managing director, said: "CheetahSoft will ensure the enthusiast is given a better deal in future, and will market extremely high quality software for a standard price of £2 50."

CheetahSoft, 24 Ray St, London EC1R 3DJ

Trio for QL

Now available for the QL QCOM, a set of communications modules, from OE Ltd together with Scicon

The joint venture combines OE Ltd's experience in hardware design with Scicon's background in communications

There are three communications modules which match the QL's design, stacking one on top of each other and interconnecting via a module bus, which ensures that no untidy connecting wires clutter up the place

With this set you can use the QL as a VT100 terminal and access databases such as Prestel, BT Gold electronic mail and Easylink telex

You can also use QCOM for downloading telesoftware, communicating user to user and integrating with existing QL software

QCON, QMOD and QCALL comprise the three modules and you can buy them direct from OE Ltd or obtain them through your local dealer early next year QCON and QMOD cost £75 95 each, while QCALL costs £49 95

OE Ltd, North Point, Gilwilly Ind Est, Penrith, Cumbria

Listen and learn

Sinclair has combined with Macmillan to produce 13 new educational software titles for the Spectrum

At £7 95 each, they are fully Microdrive compatible and each program has been devised by educationalists and then tested and modified after trials at home and in schools

Four Science Horizons simulation programs, five Learn to Read programs and four based on the Macmillan Maths scheme comprise the range, and four of the set are for the four to nine year-old range

Alison Maguire, software manager, said "All these new titles reflect the belief held by Macmillan and ourselves that educational software is only worthwhile if it extends, stimulates and amuses the user"

"We feel that our combination of professional software houses, an experienced publisher and practising educationalist has enabled this objective to be achieved"

Sinclair, Berkeley Sq Hse, London W1X 5LB

HOME COMPUTING WEEKLY

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Thomson Holidays

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Jane Bird, Sunday Times

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Sally Clark, Computer Choice

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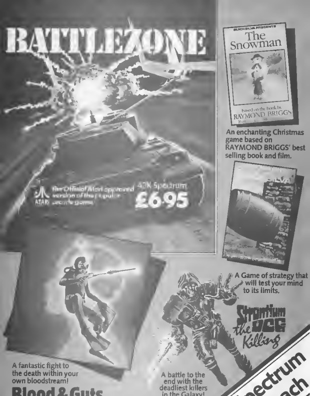
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Tel (0202) 891744

Hang on to your seats

There's plenty of excitement here. Five arcade games to get your adrenalin flowing

Eddie Kidd Jump Challenge 52K BBC £7.95

Martech, Bay Terrace, Pevensey Bay, Sussex BN24 6EE

Here we have an offering from Eddie Kidd involving the development of lightning reflexes and a great deal of intuition

The purpose is to jump as far as you can over various objects. The program is split into two parts the first involves jumping a number of barrels with a BMX bicycle. The screen shows you on your bicycle pointing in the opposite direction to the ramp and barrels. This took me a little by surprise at first, probably because I hadn't read the clear and informative instructions! You ride away until you have enough distance to build up your speed and then turn around and head for the ramp. If you make a good job of this you are allowed to try a motor cycle and jump cars

The graphics are acceptable but not too exciting. If you feel that you have made an excellent jump there is a competition with real BMX bikes as prizes but you are only allowed one entry so it is worth waiting until near the closing date

I found the game rather boring and static with far too little variation **D C**

instructions	85%
playability	70%
graphics	65%
value for money	55%

★ ★ ★

California Gold Rush CBM 64 £2.99

Software Supersavers

Yet another company attempting to break the price barrier by offering a low-cost game but in this case, the quality has suffered

The game loads in about four minutes, and displays a hi-resolution title screen which is very good a cartoon of a gawky prospector fleeing from indians. This is not a foretaste of what is to come. The game turns out to be a reworking of the old Amidar plot of filling in boxes by running round them. It's slightly different, I admit

The prospector is steered round a maze of grey blocks which fill up with bags of gold as he [illegible] them. He is chased by two indians and risk losing a scalp if caught. He also may lay sticks of dynamite which explode after about five seconds, leaving a boulder which blocks the path. I could find little practical use for this item

The low price along makes Gold Rush a consideration but any serious player would soon realise there are a hundred other better written, better designed games on the market **D A**

instructions	60%
playability	40%
graphics	45%
value for money	65%

★ ★

Shuttle Shock 48K Spectrum £2.99

Software Super Savers

Shuttle Shock is an interesting variation on the familiar multi-screen platform game theme

Instead of jumping you have a teleport system which sends a sp[illegible] out at an angle which, when it hits a solid object will rebound at right angles. If the fall to the level below is too great you fall to your death, otherwise you can continue

On many of the levels there are girders which speed across or down the screen when stepped on. To complete each screen you must walk into the battery

There are 10 screens some with computing in jokes as title for example Minter's Mowers, Atick Atock and Stinkers. The graphics aren't very good and colour choice isn't outstanding but each screen represents a difficult challenge. Many seem impossible at first and require very careful timing and positioning

An annoying feature is that you must start from the beginning once all three lives have been lost

Although the screens aren't as varied or as complex as some other games Shuttle Shock is an enjoyable challenge and it is excellent value for money **S.J.E**

instructions	25%
playability	80%
graphics	40%
value for money	100%

★ ★ ★

Fred's Fan Factory 48K Spectrum £2.99

There were no loading instructions, and trying the usual LOAD "" failed at first. This, I discovered was due to a poor recording on one side. Turning the tape over the program did load on the second attempt

The only instructions were on the cassette insert, and this just gave the three keys used in the game. The user is left to discover the object of the game for himself. You take control of Fred who runs along the base of the screen turning on fans to guide the balloons. You have to avoid spikes while picking up small circles to score points. The balloons float to the top of the screen through gaps in the floors of Fred's factory. There are four floors and eight fans

The only interest this game generated was the puzzle of how to play it. This piece of software seemed to support the old saying — you only get what you pay for! **D N**

instructions	20%
playability	40%
graphics	60%
value for money	50%

★ ★

Freex 48K Spectrum £2.99

Software Supersavers

Software Supersavers appear to be fueling the downward trend in software prices and at the same time proving that cheap does not always mean nasty

The plot is far from original it's a 'shoot 'em down' game of the space invaders type but in this version you can also move your laser base up and down the screen, in addition to the usual lateral movement

The game is a galactic marathon. There are 60 waves of aliens of every description. I was particularly fond of the little springy alien a sort of Martian version of Zebedee. Full marks to the programmer for the attack patterns. The aliens come from every angle and shoot at you in all directions. Only the most adept could possibly survive the onslaught which lasts about an hour

Graphics and sound are used to good effect. The aliens are mostly of the 3D variety and rotate rapidly. There is a demo mode in which you can shoot the aliens, but they cannot destroy you. This is excellent for practising the upper levels. **M B**

instructions	70%
playability	90%
graphics	90%
value for money	100%

★ ★ ★ ★

Make sure your aim is true or you will annihilate innocent birds. Save your people from hostile forces in this game by Lee Caller

Shoot down the enemy tank to save the city

It's the end of a long war and everyone is tired so tired in fact that they have gone to rest in the city leaving you in charge of their army! It was quiet until you spotted an enemy tank approaching from the west You have to act fast

Firstly you have to position your tank This is done by moving a joystick in port 1 either left or right and pressing the fire button when it's in the required position

Secondly you must select the guns' incline (anywhere between 15 and 75) This is chosen by moving the joystick either up or down Push it up and the value increases, down and it decreases Again, press the fire button when at the required value

Finally the shot velocity is selected in the same way as the incline

It is important that you take good aim you must avoid the birds in the sky The greater your speed the greater your chance of your shot going through the bird

Also if you take too many shots at the tank and miss every time, your city will fall to the enemy, as the enemy tank moves after every shot! Destroying the enemy will result in a new faster tank and more birds in the sky

Important Check the DATA in lines 5085-5110 as these are machine code and an error will cause a lock-up

Also, all underscored characters in the listing should be entered in **inverse video**

How it works

45-160	main loop
165-190	move enemy
1000-1535	fire shot
2000-2015	bomb explode (land)
3000-3020	bomb explode (air)
4000-4065	hit enemy
4500-4600	end of game
5000-5140	titles
5500-5555	initialise
6000-6065	p/m graphics
6500-6585	set up display

Variables

TANK horizontal position of your tank
ENEMY horizontal position of enemy tank
INC incline value
VEL velocity value
KILL number of enemy destroyed
any others are only used, for example in FOR NEXT loops

Hints on conversion

Use of players (or sprites) means POKEs which make conversion hard but not impossible With the REMs and the other details it would be best to start from scratch building up your version

```
10 REM TANK
15 REM
20 REM Lee Caller, April  84
25 REM For an ATARI in under 16K and          joystick.
30 GOSUB 5000
35 GOSUB 5500:GOSUB 6000
40 GOSUB 6500
45 REM Main loop starts here
50 POKE 77,0:POKE 82,5:POKE 752,1:? :? " PLEASE POSITIO
N YOUR TANK":? " *************************"
55 JS=STICK(0):IF JS<>7 AND JS<>11 THEN 75
60 TANK=TANK+(JS=7)-(JS=11):IF TANK<47 THEN TANK=47:GOT
O 75
65 IF TANK>89 THEN TANK=89:GOTO 75
70 SOUND 0,210,8,15:POKE 53248,TANK:FOR PAUSE=1 TO 15:N
EXT PAUSE:SOUND 0,0,0,0
75 IF STRIG(0)=1 THEN 55
80 SOUND 0,70,10,15:FOR PAUSE=1 TO 200:NEXT PAUSE:SOUND
 0,0,0,0
85 ? :? "GUN INCLINE    SHOT VELOCITY":? "************
 *************"
90 ? "   >";INC;"<              ";VEL;CHR$(30)
95 JS=STICK(0):IF JS<>14 AND JS<>13 THEN 115
100 INC=INC+(JS=14)-(JS=13):IF INC<15 THEN INC=15:GOTO
```

```
115
105 IF INC>75 THEN INC=25:GOTO 115
110 SOUND 0,120,10,15:FOR PAUSE=1 TO 20:NEXT PAUSE:SOUN
D 0,0,0,0
115 IF STRIG(0)=1 THEN 90
120 SOUND 0,20,10,15:FOR PAUSE=1 TO 200:NEXT PAUSE:SOUN
D 0,0,0,0
125 ? "    ";INC;"                >";VEL;"<";CHR$(28)
130 JS=STICK(0):IF JS<>14 AND JS<>13 THEN 150
135 VEL=VEL+(JS=14)-(JS=13):IF VEL<15 THEN VEL=15:GOTO
150
140 IF VEL>75 THEN VEL=75:GOTO 150
145 SOUND 0,120,10,15:FOR PAUSE=1 TO 20:NEXT PAUSE:SOUN
D 0,0,0,0
150 IF STRIG(0)=1 THEN 120
155 SOUND 0,70,10,10:FOR PAUSE=1 TO 200:NEXT PAUSE:SOUN
D 0,0,0,0
160 GOSUB 1000
165 REM Move enemy
170 FOR POS=ENEMY TO ENEMY-MOVE STEP -1:SOUND 0,210,8,1
0:POKE 53249,POS
175 FOR PAUSE=1 TO 10:NEXT PAUSE:NEXT POS:ENEMY=ENEMY-M
OVE:SOUND 0,0,0,0
180 IF ENEMY>139 THEN 60
185 GOTO 4500
190 REM End of main loop
1000 REM Fire shot
1005 ? :? :? :? "STAND BY TO FIRE...":FOR VV=10 TO 0 ST
EP -0.1:SOUND 0,230,8,VV:NEXT VV:REMI=90
1010 ? :? :? :COLOR 3:F=1:LK=1:GOSUB 1500:IF X>ENEMY-49
 AND X<ENEMY-42 THEN POP :GOTO 4000
1015 COLOR 0:F=1:LK=0:GOSUB 1500:GOSUB 2000:RETURN
1500 CX=(TANK-41)+VEL
1505 DEG :FOR ST=267 TO 90 STEP -5
1510 X=CX+VEL*SIN(ST):Y=58+INC*COS(ST):TRAP 1535
1515 IF LK=1 THEN SOUND 0,X,10,10:LOCATE X,Y,NI:IF NI<>
0 THEN POP :SOUND 0,0,0,0:GOTO 3000
1520 IF F=1 THEN PLOT X,Y:F=0
1525 DRAWTO X,Y
1530 NEXT ST:SOUND 0,0,0,0:RAD :RETURN
1535 F=1:GOTO 1530
2000 REM Explode on land
2005 FOR CC=15 TO 0 STEP -1:COLOR CC:FOR EXL=X-8 TO X+8
 STEP 2:SOUND 0,225+CC,8,CC:TRAP 2015
2010 PLOT X,62:DRAWTO EXL,50
2015 NEXT EXL:NEXT CC:SOUND 0,0,0,0:RETURN
3000 REM Explode in air
3004 REMI=ST:COLOR 0:F=1:LK=0:GOSUB 1500
3010 FOR CC=15 TO 0 STEP -1:COLOR CC:FOR EXL=-8 TO 8 ST
EP 2:SOUND 0,225+CC,8,CC:TRAP 3020
3015 PLOT X+EXL,Y-4:DRAWTO X,Y:DRAWTO X+EXL,Y+8:PLOT X-
4,Y+EXL:DRAWTO X,Y:DRAWTO X+8,Y+EXL
3020 NEXT EXL:NEXT CC:SOUND 0,0,0,0:GOTO 165
4000 REM Hit enemy
4005 FOR CC=15 TO 0 STEP -1:COLOR CC:POKE 705,128+(15-C
C):FOR EXL=X-16 TO X+16 STEP 2:TRAP 4015
4010 SOUND 0,225+CC,8,CC:PLOT X,61:DRAWTO EXL,40
4015 NEXT EXL:NEXT CC:SOUND 0,0,0,0:KILL=KILL+1:MOVE=MO
VE+2:POKE 82,0:POKE 705,156
4020 ? "WELL DONE...":? "YOUVE DESTROYED ";KILL;" ENEMY
 ";:IF KILL=1 THEN ? "TANK,":? :GOTO 4030
4025 ? "TANKS,":?
4030 ? "BUT HERE COMES A FASTER ONE.....!";:RESTORE 404
5
4035 FOR TUNE=1 TO 11:READ PT,DL:SOUND 0,PT,10,15:SOUND
 1,PT+1,10,13:FOR PAUSE=1 TO DL*16:NEXT PAUSE
4040 SOUND 0,0,0,0:SOUND 1,0,0,0:NEXT TUNE
4045 DATA 121,3,121,4,121,3,121,3,108,5,108,3,108,3,121
,3,121,3,128,3,121,6
4050 FOR POS=TANK TO 47 STEP -1:SOUND 0,210,8,15:POKE 5
3248,POS
4055 FOR PAUSE=1 TO 10:NEXT PAUSE:NEXT POS:SOUND 0,0,0,
0
4060 FOR PAUSE=1 TO 500:NEXT PAUSE:? #6;CHR$(125)
4065 POKE 53249,220:POKE 559,0:POKE 705,222:GOTO 40
4500 REM End of game (enemy in city)
4505 FOR POS=ENEMY TO TANK+10 STEP -1:SOUND 0,210,8,15:
POKE 53249,POS
4510 FOR PAUSE=1 TO 15:NEXT PAUSE:NEXT POS
4515 SOUND 1,230,8,15:FOR POS=TANK TO 47 STEP -1:POKE 5
3248,POS:POKE 53249,POS+10
4520 FOR PAUSE=1 TO 15:NEXT PAUSE:NEXT POS:SOUND 1,0,0,
0
4525 FOR POS=57 TO 90:POKE 53249,POS
4530 FOR PAUSE=1 TO 15:NEXT PAUSE:NEXT POS:SOUND 0,0,0,
0
4535 FOR PAUSE=1 TO 200:NEXT PAUSE
4540 POKE 82,0:? " YOU HAVE FAILED!":? " THE ENEMY ARE
IN THE CITY....":RESTORE 4555
4545 FOR TUNE=1 TO 15:READ PT,DL:SOUND 0,PT,10,15:SOUND
 1,PT+1,10,13:FOR PAUSE=1 TO DL*10:NEXT PAUSE
4550 SOUND 0,0,0,0:SOUND 1,0,0,0:NEXT TUNE
4555 DATA 136,4,162,3,204,3,162,3,136,5,136,4,162,3,204
,3,162,3,136,5,204,4,162,3,136,3,162,3,204,6
4560 ? CHR$(125)
4565 ? "                    GAME OVER ":? "YOU DESTROYED ";K
ILL;:IF KILL=1 THEN ? " TANK DURING THE BATTLE":GOTO 45
75
4570 ? " TANKS DURING THE BATTLE"
4575 ? " PLEASE PRESS THE  SPACE BAR  TO PLAY";
4580 POKE 764,NORM
4585 POKE 755,0:FOR LOOP=1 TO 20:IF PEEK(764)<>NORM THE
N POKE 764,NORM:CLR :GOTO 35
4590 NEXT LOOP:POKE 755,2:FOR LOOP=1 TO 20
4595 IF PEEK(764)<>NORM THEN POKE 764,NORM:CLR :GOTO 35
4600 NEXT LOOP:GOTO 4580
5000 REM Titles
5005 GRAPHICS 17:SETCOLOR 1,9,12:SETCOLOR 3,13,14:SETCO
LOR 4,14,0
5010 DLIST=PEEK(560)+PEEK(561)*256+4:POKE DLIST+23,7:PO
KE 559,0:POKE 16,64:POKE 53774,64
5015 ? #6;"###  ##  #   # #   #";
5020 ? #6;" #  #  # ##  # #  #"
5025 ? #6;" #  #  # ### # # #"
5030 ? #6;" #  #### # # # ###"
5035 ? #6;" #  #  # # ### # #"
5040 ? #6;" #  #  # #  ## #  #"
5045 ? #6;" #  #  # #   # #   #"
5050 ? #6;" protect your city  ":? #6;" from the advanc
ing ":? #6;"    enemy tanks!"
5055 POSITION 1,21:? #6;"please press the"
5060 ? #6;"    SPACE BAR "
5065 ? #6;"  to begin play"
5070 RESTORE 5085
5075 FOR SCROLL=0 TO 63:READ DATA:POKE SCROLL+1664,DATA
:NEXT SCROLL
5080 FOR FLASH=0 TO 84:READ DATA:POKE FLASH+1536,DATA:N
EXT FLASH
5085 DATA 173,56,2,141,143,6,173,57,2,141,199,6,160,169
,162,6,169,7,32,92,228,230
5090 DATA 173,6,173,173,6,141,10,212,141,24,208,174,252
,2,232,240,238,172,193,6
5095 DATA 174,194,6,169,7,32,92,228,104,96,238,128,2,17
3,198,2,141,193,6,76,98,228
5100 DATA 0,72,158,72,230,38,6,174,38,6,189,39,6,141,10
,212,141,196,2,224,15,208
5105 DATA 5,169,0,141,38,6,169,5,141,26,2,104,170,104,4
0,96,0,0,24,48,36,72,60,184
5110 DATA 120,156,152,168,184,208,216,232,248
5115 SOUND 0,0,0,0:POKE 53768,4:POKE 53761,168:POKE 537
65,168:POKE 53760,254:POKE 53764,127
5120 POKE 553,6:POKE 536,25:POKE 559,34
5125 NORM=PEEK(764)
5130 A=USR(1664)
5135 SOUND 0,0,0,0:SOUND 2,0,0,0:POKE 764,NORM:POKE 553
,0:POKE 536,0
5140 RETURN
5500 REM Initialise
5505 KILL=0:INC=35:VEL=35:MOVE=3
5510 RETURN
6000 REM Player/Missile set up for                tanks
6005 GRAPHICS 7
6010 GRAPHICS 7+32:SETCOLOR 0,13,4:SETCOLOR 1,1,2:SETCO
LOR 2,0,14:SETCOLOR 4,0,0
6015 POKE 704,0:POKE 705,222:POKE 16,64:POKE 53774,64
6020 RAM=PEEK(106)-24:POKE 54279,RAM:PMB=RAM*256
6025 POKE 559,0
6030 POKE 53277,3
6035 POKE 53248,0:POKE 53249,0
6040 FOR SET=PMB+1024 TO PMB+1470:POKE SET,0:NEXT SET
6045 RESTORE 6060
6050 FOR SET=PMB+1167 TO PMB+1178:READ DATA:POKE SET,DA
TA:NEXT SET
6055 FOR SET=PMB+1425 TO PMB+1431:READ DATA:POKE SET,DA
TA:NEXT SET
6060 DATA 0,1,2,4,156,128,254,255,126,2,2,2,14,254,14,1
27,255,126
6065 RETURN
6300 REM Set up display
6305 TANK=47+(RND(0)*42):ENEMY=200-(RND(0)*20)
6310 COLOR 1
6315 PLOT 159,79:DRAWTO 159,60:DRAWTO 0,60:POSITION 0,7
9:POKE 765,1:XIO 18,#6,0,0,"S:"
6320 COLOR 2:FOR BIRDS=1 TO 15+KILL:PX=RND(0)*155:PY=RN
D(0)*40
6325 PLOT PX,PY+1:PLOT PX+1,PY:PLOT PX+2,PY+1:PLOT PX+3
,PY:PLOT PX+4,PY+1
6330 NEXT BIRDS
6335 FOR BD=50 TO 60:PLOT BD,59:DRAWTO BD,35:NEXT BD
6340 COLOR 3:FOR BB1=51 TO 59 STEP 2:FOR BB2=26 TO 58 S
TEP 2:PLOT BB1,BB2:NEXT BB2:NEXT BB1
6345 COLOR 2:FOR BD=60 TO 70:PLOT BD,59:DRAWTO BD,40:NE
XT BD:COLOR 3:FOR BB=41 TO 59 STEP 2
6350 PLOT 61,BB:DRAWTO 69,BB:NEXT BB:COLOR 2:FOR BD=71
TO 77:IF BD=74 THEN NEXT BD
6355 PLOT BD,59:DRAWTO BD,30:NEXT BD:COLOR 3:PLOT 71,35
:DRAWTO 77,35:PLOT 71,37:DRAWTO 77,37
6360 COLOR 0:PLOT 74,35:PLOT 74,37:POKE 559,62
6365 FOR POS=47 TO TANK:SOUND 0,210,8,15:POKE 53248,POS
6370 FOR PAUSE=1 TO 9:NEXT PAUSE:NEXT POS
6375 FOR POS=200 TO ENEMY STEP -1:SOUND 0,230,8,15:POKE
 53249,POS
6380 FOR PAUSE=1 TO 9:NEXT PAUSE:NEXT POS:SOUND 0,0,0,0
6385 RETURN
```

Toolbox (Matcal) Amstrad CPC464 £4.95

Camel

Matcal contains four toolkit programs of real value to the games programmer.

AMSPICT is a drawing board for background graphics with menu driven editions. Save to tape, re-call and merge into your own BASIC program are all easily accessible.

Using Infill to colour enclosed areas occasionally overran the perimeters and crashed the program.

AMSPRITE is a sophisticated character generator for sprite creation. The ability to design sprites of up to 40 x 40 Pixels in any of three colours, with a routine for animating them makes this invaluable for designing fast moving graphics.

A menu driven program with full save and re-call facilities. The latter routine is complicated but practice and patience are well rewarded.

FCOPY enables duplication of tapes, is quick and easy to use and records at either 1000 or 2000 baud rate, regardless of the original format.

AMSMON has the facility to enter and save short machine code programs and is a monitor giving access to the ROM and RAM memory addresses.

Accompanying the cassette is a comprehensive handbook in which explanation is followed by example.

Exceptional value for money **D.H.**

instructions	100%
playability	85%
graphics	80%
value for money	100%

★ ★ ★ ★

The German Master-Level B CBM 64 £8.95

Kosmos, 1 Pilgrims Close, Harlington Beds LU5 6LX

This educational program would be suitable for students studying CSE or 'O' level German. The facilities provided in it allow the user to have a lesson or test at various levels of difficulty.

A lesson displays words or phrases in English and German on the screen, one after the other. You may specify which is to be displayed first and for how long. You may then step through the various items which have been set up.

A test will display a word or phrase in one language and you must translate it into the other. If you make a wrong key press then the computer will beep. Help may be obtained by pressing a cursor key to reveal the next character.

You may set up your own lessons and add and delete entries at your discretion. When you receive the program there are already sixteen pre-recorded lessons which cover colours, pastimes, tools, countries, medical, verb infinitives, adverbs, adjectives, conjunctions and prepositions, phrases, verbs in various tenses.

The program seems to do the job that it was designed for quite well although it is quite expensive. **K.I.**

instructions	65%
display	50%
ease of use	70%
value for money	70%

★ ★ ★ ★

Oddments corner

Here are a few programs with a difference to add variety to your collection

BBC Mastermind £9.95 BBC Mastermind Quizmaster £5.95 48K Spectrum

Mirrosoft, PO Box 50, Bromley Kent BR2 9TJ

BBC Mastermind is the computer version of what must be the most popular quiz program on television. This Spectrum package consists of an explanatory booklet and two tapes.

One of the tapes holds the data for questions and answers on TV and films, and also general knowledge. The other tape is required to display the questions and sum up the results of the answers.

Up to four people can participate, as in the TV program, but separate data has to be loaded in for each person.

First the data for the chosen specialist subject, and then the general knowledge questions and answers. As you will appreciate, this loading takes up a fair amount of time. Should the contestants' tastes not run to TV or films then someone will have to set the questions and supply the answers for the chosen subjects.

For this they will need the BBC Mastermind Quizmaster tape, although, as you can see from the head of this review, each pack is sold separately. I have no doubt that someone, somewhere will find these two programs of use. **B.B.**

instructions	100%
ease of use	70%
graphics	N/A
value for money	60%

★ ★

Swift Spreadsheet Commodore 64 £19.95

This is one of a growing number of spreadsheet programs for the 64. This one is notable for three reasons. It has lots of facilities, it's cheap and uses pop-up menus.

There are 21 function commands including Sort, If, Max, Min, Count, Present value. Although Log was missing there were many not found in other spreadsheets. You could create a set up procedure for your printer which could be saved with your spreadsheets.

A novel feature is the use of pop up menus. Pressing F5 displays a box of options on the screen, selecting one of these options causes another box of lower level options to appear slightly overlapping the first. These menus pop up over your existing work and do not disturb it. When you exit from them they disappear.

Two features that I liked were the ability to replicate a block of the worksheet and to alter column widths individually. You would need to spend much more to find a better spreadsheet. The only feature lacking is the transfer of data from one sheet to another or into you own programs.

instructions	60%
useability	80%
graphics	70%
value for money	90%

★ ★ ★ ★ ★

Know Your Own Persanality 48K Spectrum £9.95

Mirrosoft, PO Box 50, Bromley, Kent BR2 9TT

This program is, presumably, and aid to the better understanding of yourself, according to the title. With 70 questions in each section, there are three sections. These cover introversion and extraversion, emotional stability, and tough/tender mindedness.

After choosing a section from the menu, you load in the 70 questions and answers for that section. After the questions have been answered you can see the results of your answers on a horizontal bar chart. This bar chart will grow to one side, or the other, of a vertical line representing the norm. This growth represents the amount of deviation from the norm, showing your propensity for the trait towards which the bar is growing. Of course, this means that you are different, according to the booklet supplied. It is these differences which makes us individuals, which give us charming eccentrics.

It also gives us individuals with less desirable traits, the perverts and criminals.

It is suggested that we could perhaps understand our friends more and they us, if we each saw the results. A kind of do it yourself group therapy? No thanks. I will keep my friends just as they are. **B.B.**

instructions	100%
ease of use	75%
graphics	N/A
value for money	75%

★ ★

Character study

Look more closely at those pixels with this graphics utility by N D Moss

This program allows you to view and edit characters and sprites

When you view a character or sprite you enlarge each pixel 64 times Each pixel is represented by a star In the top right hand corner the character or sprite is displayed, while the enlarged version can be seen on the left

If you want to edit a character, you must signify where the start of the character set is You will be asked for the screen memory code of the character you wish to edit For this, refer to the user manual, page 132

Variables

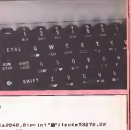
L(x)	array for horizontal line plotting and erasing
V(x)	array for calculation
Q,W	FOR NEXT variables
B$(x),C$(x),S$(x)	strings holding enlarged characters/sprites
D(x),C(x)	array for numbers to be POKEd
X,Y	position of cursor sprite
S	screen position for editing
L	position in string
L1,S1	temporary storage for line plotting

How it works

0-30	initialisation of cursor sprite
40-90	menu
100-320	character view
330-570	sprite view
580-880	character edit
890-1160	sprite edit
1180-1610	subroutines for line plotting/erasing

Once you have entered the code, a blue grid will appear and the controls for the cursor will be displayed Move the cursor around the grid and when you want to plot a point, press "j" If you wish to delete a point, move the cursor over the point and press "j" again When you have finished, press Return and all the calculations will be performed

If you want to edit a sprite, the procedure is exactly the same, but there are four more controls which can plot or erase a whole line vertically or horizontally These are displayed on the right, together with the other controls The sprite pointer is the number used in locations 2040-2047



```
0 data255,128,129,129,129,129,129,129,255
1 diml(21):forq=1to21:l(q)=(q-1)*24+1:next
2 poke645,25
5 rem[clr]
10 poke53269,0:poke53248,0:poke54259,0:poke2040,0:print"■";:poke53272,22
20 poke53280,0:poke53281,0:poke646,1:poke650,128
30 forq=16320to16384:pokeq,0:next:forq=16320to16344step3:readf:pokeq,f:next
40 printtab(15);"MENU":printtab(15);"————"
45 rem[4 crsr down"
50 forq=0to7:v(q)=2↑q:next:print"■■■"
60 printtab(10);"1 Character view■":printtab(10);"2 Sprite view■"
70 printtab(10);"3 Character edit■":printtab(10);"4 Sprite edit■"
75 printtab(10);"5 END PROGRAM"
80 geta$:ifa$<"1"ora$>"5"then80
90 onval(a$)goto100,330,580,890,1170
100 dimb$(64),c(8),d(8)
105 rem[clr]
110 input"■Enter the memory location ";a
120 input"Enter the screen memory code ";b
130 a=a+(b*8):n=1
140 forq=0to7:c(q)=a+q:d(q)=peek(c(q)):next
150 forw=0to7
160 v=d(p)
170 ifv=0thenn=n+8:goto220
180 forq=7to0step-1
190 ifv>=v(q)thenb$(n)="*":v=v-v(q):n=n+1:goto210
200 b$(n)=" ":n=n+1
210 next
```

```
220 p=p+1:next
230 forq=0to63:ifb$(q)=""thenb$(q)=" "
240 next
250 print"█";:poke1063,b:poke55335,1
260 forq=1to64step8:forw=0to7
270 printb$(q+w);:next:print:next
280 print"Do you want to see the data for this y/n"
290 geta$:ifa$=""then290
300 ifa$="n"thenrun
310 ifa$<>"y"thengoto290
320 forq=0to7:printd(q):next:wait197,18:run
330 dims$(504),c(63),d(63)
335 rem[clr]
340 input"█What is the sprite pointer ";a:a=a*64
350 forq=0to63:c(q)=q+a:d(q)=peek(c(q)):next
360 n=1
370 forw=0to62
380 v=d(p)
390 ifv=0thenn=n+8:goto440
400 forq=7to0step-1
410 ifv>=v(q)thens$(n)="*":v=v-v(q):n=n+1:goto430
420 s$(n)=" ":n=n+1
430 next
440 p=p+1:next
450 forq=1to504:ifs$(q)=""thens$(q)=" "
460 next
465 rem[clr]
470 print"█":poke53269,1:poke2040,a/64:poke53248,255:poke53249,50:poke53287,1
480 forq=1to503step24:forw=0to23
490 prints$(q+w);:next:print:next
500 print"Do you want to see the data for this y/n"
510 geta$:ifa$=""then510
520 ifa$="n"thenrun
530 ifa$<>"y"then510
535 rem[clr]
540 print"█";
550 forq=0to60step3
560 printd(q),d(q+1),d(q+2)
570 next:wait197,18:run
575 rem[clr]
580 print"█"
590 poke2040,255:v=53248:pokev+21,1:pokev+39,1:x=24:y=50
600 dims$(64),c(8),d(8):forq=1to64:s$(q)="*":next
610 input"Enter the location ";h
620 input"Enter the screen memory code ";a
625 rem[clr]
630 print"█";:a=(a*8)+h
635 rem[blue]
640 pokev,x:pokev+1,y:s=1024:l=1:print"█";
650 forq=1to64step8:forw=0to7:prints$(q+w);:next:print:next
655 rem[home]
660 print"██";tab(20);"ABORT:CTRLa":printtab(20);"CRSR up    :u"
670 printtab(20);"CRSR down :m":printtab(20);"CRSR left :h"
680 printtab(20);"CRSR right:K":printtab(20);"PLOT/UNPLOT:j"
685 rem[crsr dn]
690 printtab(20);"FINISH:RETURN█"
700 geta$:ifa$=""then700
710 ifa$="u"andy>=58theny=y-8:s=s-40:l=l-8:goto800
720 ifa$="m"andy<=104theny=y+8:s=s+40:l=l+8:goto800
730 ifa$="h"andx>=32thenx=x-8:s=s-1:l=l-1:goto800
740 ifa$="K"andx<=72thenx=x+8:s=s+1:l=l+1:goto800
```

```
745 rem[ctrl a]
750 ifa$="█"thenrun
760 ifa$=chr$(13)thenprinttab(20);"O.K.":goto810
770 ifa$<>"j"then700
780 ifpeek(s)=15thenpokes,42:s$(l)="*":pokes+54272,6:goto800
790 ifpeek(s)=42thenpokes,15:s$(l)="o":pokes+54272,1
800 pokev,x:pokev+1,y:goto700
810 forq=0to63:c$(int(q/8))=c$(int(q/8))+s$(q+1):next:forq=0to7:c(q)=a+q:next
820 forq=0to7
830 forw=1to8
840 p=8-w
850 ifmid$(c$(q),w,1)="o"thent=t+v(p)
860 next:d(q)=t:t=0:next
870 forq=c(0)toc(7):pokeq,d(e):e=e+1:next
880 print"Press any key ":wait197,18:run
885 rem[clr]
890 input"█What is the sprite pointer ";a:a=a*64
900 dims$(504),c(64),d(64),c$(63)
910 forq=0to63:c(q)=a+q:next
915 rem[clr][blue]
920 forq=1to504:s$(q)="*":next:print"██";
930 forq=1to504step24:forw=0to23:prints$(q+w);:next:print:next:s=1024:l=1
935 rem[home][white]
940 print"█";tab(24);"█ABORT:CTRLa":printtab(24);"CRSR up    :u"
950 printtab(24);"CRSR down :m":printtab(24);"CRSR left :h"
960 printtab(24);"CRSR right:k":printtab(24);"PLOT/UNPLOT:j"
970 printtab(24);"H.LINE FILL:d":printtab(24);"V.LINE FILL:e"
972 printtab(24);"H.LINE DELETE:s":printtab(24);"V.LINE DELETE:x"
974 printtab(24);"FINISH:RETURN"
980 poke2040,255:v=53248:pokev+21,1:pokev+39,1:x=24:y=50:pokev,x:pokev+1,y
990 geta$:ifa$=""then990
1000 ifa$="u"andy>=58thens=s-40:y=y-8:l=l-24:goto1080
1005 ifa$="d"thengosub1250
1010 ifa$="m"andy<=202thens=s+40:y=y+8:l=l+24:goto1080
1015 ifa$="s"thengosub1340
1020 ifa$="h"andx>=32thens=s-1:l=l-1:x=x-8:goto1080
1021 rem[ctrl a]
1022 ifa$="█"thenrun
1025 ifa$="e"thengosub1180
1030 ifa$="k"andx<=200thens=s+1:l=l+1:x=x+8:goto1080
1035 rem[8 crsr dn]
1040 ifa$=chr$(13)thenprinttab(24);"O.K.█████████":goto1090
1045 ifa$="x"thengosub1430
1050 ifa$<>"j"then990
1060 ifpeek(s)=42thenpokes,15:s$(l)="o":pokes+54272,1:goto1080
1070 ifpeek(s)=15thenpokes,42:s$(l)="*":pokes+54272,6
1080 pokev,x:pokev+1,y:goto990
1090 forq=0to503:c$(int(q/8))=c$(int(q/8))+s$(q+1):next
1100 forq=0to63
1110 forw=1to8
1120 p=8-w
1130 ifmid$(c$(q),w,1)="o"thent=t+v(p)
1140 next:d(q)=t:t=0:next
1150 forq=c(0)toc(63):pokeq,d(e):e=e+1:next
1160 print"Press any key ":wait197,191:run
1170 end
1180 l1=l:ifl1<=24then1190
1185 l1=l1-24:ifl1>=25then1185
1190 s1=1024+l1-1
1200 forq=l1to(504-(23-l1))step24
1210 pokes1,15:pokes1+54272,1
```

```
1215 s1=s1+40
1220 s$(q)="o"
1230 next
1240 return
1250 s1=s
1260 l1=1
1270 ifint((l1-1)/24)=(l1-1)/24thengoto1310
1280 l1=l1-1:s1=s1-1:goto1270
1310 forq=l1tol1+23
1320 pokes1,15:pokes1+54272,1:s$(q)="o":s1=s1+1:next
1330 return
1340 s1=s
1350 l1=1
1360 ifint((l1-1)/24)=(l1-1)/24thengoto1400
1370 l1=l1-1:s1=s1-1:goto1360
1400 forq=l1tol1+23
1410 pokes1,42:pokes1+54272,6:s$(q)="*":s1=s1+1:next
1420 return
1430 l1=1:ifl1<=24then1450
1440 l1=l1-24:ifl1>=25then1440
1450 s1=1024+l1-1
1460 forq=l1to(504-(23-l1))step24
1470 pokes1,42:pokes1+54272,6
1480 s1=s1+40
1490 s$(q)="*"
1500 next
1510 return
```

LOW LOW PRICES ON ALL OUR COMPUTER GAMES

SPECTRUM	REC. PRICE	OUR PRICE
D Thompson Decathlon	[illegible]	[illegible]
Full Throttle	[illegible]	[illegible]
Monty Mole	[illegible]	[illegible]
Jet Set Willy	[illegible]	[illegible]
Micro Olympics	[illegible]	[illegible]
Tornado Low Level	[illegible]	[illegible]
Sabre Wulf	[illegible]	[illegible]
Lords of Midnight	[illegible]	[illegible]
Jack & The Beanstalk	[illegible]	[illegible]
Psytron	[illegible]	[illegible]
World [illegible]	[illegible]	[illegible]

COMMODORE 64	REC. PRICE	OUR PRICE
D Thompson Decathlon	[illegible]	[illegible]
Monty Mole	[illegible]	[illegible]
Beach Head	[illegible]	[illegible]
Micro Olympics	[illegible]	[illegible]
Valhalla	[illegible]	[illegible]
Trashman	[illegible]	[illegible]
Flight Path 737	[illegible]	[illegible]
Moon Raid	[illegible]	[illegible]
Toy Bizarre	[illegible]	[illegible]
Aztec Challenge	[illegible]	[illegible]

Merrals Wood Garage,
Merrals Wood Road Strood Kent

VOCE VIDEO

Please send for following Computer
I enclose a self addressed stamped envelope

Please tick box to show make of Computer ☐ BBC ☐ Atari
☐ Spectrum ☐ Commodore ☐ VIC ☐ Oric

Name ....
Address ....
....
Title .... £
Title .... £
Title .... £

Send for list of games on VIC 20 BBC Oric Dragon Our end of summer sale makes many games half price All prices include Post and Packing and VAT Cheques and Postal Orders made payable to Voce Video CV83

POOLSWINNER

THE ULTIMATE POOLS PREDICTION PROGRAM

- **MASSIVE DATABASE** Poolswinner is a sophisticated Pools prediction aid. It comes complete with the largest database available – 22000 matches over 10 years. The database updates automatically as results come in.
- **PREDICTS** Not just SCOREDRAWS, but AWAYS, HOMES and NO SCORES.
- **SUCCESSFUL** SELEC guarantee that Poolswinner performs significantly better than chance.
- **ADAPTABLE** Probabilities are given on every fixture – choose as many selections as you need for your bet. The precise prediction formula can be set by the user – you can develop and test your own unique method.
- **SIMPLE DATA ENTRY** All English and Scottish team names are in the program. Simply type in the reference numbers from the screen. Or use FIXGEN to produce fixture list automatically (see below).
- **DISC/MICRODRIVE COMPATIBLE** All versions (except Apple and IBM) are supplied on tape with simple instructions for conversion to disc/microdrive operation.

(This seasons results are supplied with the package so that predictions can start immediately.)

AVAILABLE FOR Spectrum (48K), Commodore 64 VIC 20 (+16K), AMSTRAD CPC 464 BBC B, Atari (48K), ZX81 (16K), Dragon, Apple II, IBM pc

PRICE £15.00 (all inclusive)

Boxed, with detailed instruction booklet

NEW

FIXGEN 84/5

AT LAST! No more struggling for hours to get the fixture list into the computer. FIXGEN has been programmed with all English and Scottish fixtures for 1984/5. Simply type in the date, and the full fixture list is generated in seconds. Fully compatible with Poolswinner.

POOLSWINNER with FIXGEN £16.50 (all inclusive)

Fixgen alone £5.50

COURSEWINNER V3

THE PUNTERS COMPUTER PROGRAM

Coursewinner is important to allow you to develop and test your own unique winning system. Using information from daily newspapers or 'Sporting Life', the most important factors can be input to the program. The program is supplied with a database detailing best trainers and jockeys and effect of the draw for all British courses. (Flat & National Hunt)

AVAILABLE FOR Spectrum (48K), Commodore 64, BBC (B), Dragon, Atari (48K), Apple II

PRICE £12.50 (all inclusive)

AVAILABLE (RETURN OF POST) FROM

VISA phone 24 hrs

selec SOFTWARE

phone 24 hrs

37 COUNCILLOR LANE, CHEADLE CHESHIRE ☎ 061-428 7425

Give a dog a bone

In this neat little maze game by Paul Shaddick you're a dog digging up bones you buried in a maze. Be warned — it's not as easy as it sounds!

In this maze game you are a dog. A few weeks ago you buried several bones around a maze and now you want to dig them all up again. You can only see one bone at a time and when you get it you gain points.

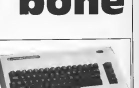
Sounds easy? Well, there's a snag: there's a time limit for each bone. You have three lives and four levels of difficulty. The maze is different each time and instructions are included.

Variables

LV lives
SC score
HS high score
TI$ timer
OL position of bone
LE death routine after your time has run out
J position of dog

How it works

2 clears screen
1-49 introduction
55-60 set up levels of difficulty
100-104 movement of dog, draw maze
1006 POKEs bone on screen
1008 position of bone
1010 timer
1013 hi score
1015 lives left scoring
1016-1021 movement keys
2000 death routine
2003 end of game
3000 scoring
3001-4003 congratulations when level is cleared
4003 starts again



```
1 REM BONE HUNT
2 POKE36879,125
3 PRINT"♥"
13 PRINT"******BONE  HUNT******"
14 PRINT"BY ROB & PAUL SHADDICK***********************"
15 PRINT
20 PRINT"LEFT     = Z"
21 PRINT
22 PRINT"RIGHT    = X"
23 PRINT
24 PRINT"DOWN     = L"
25 PRINT
26 PRINT"UP       = P"
27 PRINT
```

```
28 PRINT"YOU ARE = ¢"
29 PRINT
30 PRINT"YOUR BONE IS=*
31 INPUT"       HIT RETURN";A$:IFA$=""THEN32
32 PRINT"■"
33 PRINT"COLLECT EACH BONE BEFORE THE TIME LIMIT RUN OUT"
34 PRINT"OR YOU WILL LOSE A LIFE."
35 PRINT
36 PRINT"LEVEL 1=20 SECONDS"
37 PRINT"LEVEL 2=17 SECONDS"
38 PRINT"LEVEL 3=12 SECONDS"
39 PRINT"LEVEL 4=8  SECONDS"
40 PRINT"*****GOOD LUCK******"
41 PRINT
49 INPUT"       HIT RETURN";IFA$=""THEN49
55 POKE36878,15
56 FORZ=128TO255:POKE36875,Z:NEXT
57 POKE36875,0
58 POKE36879,110:INPUT"▲    INPUT LEVEL(1-4)■";A:IFA<1 OR A>4THEN58
60 LE=5-A:LE=LE*4+4
100 PRINT"■■";A=7778:POKE650,128
105 FORZ=0TO21:POKE7724+Z,102:POKE8142+Z,102:POKE38400+Z,1:POKE38862+Z,1:NEXT
110 A(0)=-1:A(1)=-22:A(2)=1:A(3)=22:FORF=1TO10
150 PRINT"■■                     ■■";:       NEXTF:POKEA,4
220 J=INT(RND(1)*4):G=J:POKE30720+A,7
230 B=A+A(J)*2:IF PEEK(B)=160THEN POKEB,J:POKE30720+A,5:POKEA+A(J),32:A=B:GOTO22
0
240 J=(J+1)*-(J<3):IFJ<>GTHEN230
250 J=PEEK(A):POKEA,32:IFJ<4THENA=A-A(J)*2:GOTO 220
1000 LV=3:FORZ=1TO80:X=INT(RND(1)*22)+1+INT(RND(1)*8)*44
1002 IFPEEK(7724+X)=160ANDPEEK(7746+X)=160THENPOKE7724+X,32
1004 NEXT Z
1006 X=RND(1)*386:IFPEEK(7724+X)<>32THEN1006
1008 OL=7724+X:POKEOL,42
1010 TI$="000000":POKEA,94:J=3
1013 PRINT"■";:FORZ=1TO33:PRINT" ";:NEXT:PRINT"■HS:■";HS
1015 PRINT"■■LV:■"LV"      ■TIME:■"TI$"■SC:■"SC:IFVAL(TI$)>=LE THEN2000
1016 GETZ$:IFZ$=""THEN1015
1017 IF Z$="Z"THENJ=0
1018 IF Z$="X"THENJ=2
1019 IF Z$="P"THENJ=1
1020 IF Z$="L"THENJ=3
1021 B=A+A(J):IFPEEK(B)<>102 AND PEEK(B)<>160 THEN 1040
1030 GOTO1015
1040 IFPEEK(B)=42THEN3000
1050 POKEB,94:POKEA,32:A=B:GOTO 1015
2000 LV=LV-1:FORZ=155TO0STEP-1:POKEA,RND(1)*6+109
2003 NEXT:POKEA,94:IFLV>0THEN1010
2005 PRINT"■ ■F1▲-NEW MAZE ■F7▲-START "
2006 SC=0:LV=3:GETK$:IFK$="■"THEN58
2007 IFK$="■"THEN1010
2010 GOTO2006
3000 SC=SC+50-VAL(TI$):POKEOL,32:IFSC>HSTHENHS=SC
3001 IFSC>500 THEN4000
3012 POKE36878,15
3013 FORZ=128TO255:POKE36875,Z:NEXT
3014 POKE 36875,0
3016 GOTO1000
4000 PRINT"■"
4001 PRINT"-------WELL DONE------"
4002 PRINT"-TRY A DIFFERENT LEVEL
4003 IFSC>500THENSC=0
4004 GOTO36
```

Swot spot

Home Computing Weekly is pleased to present you with an extra-special feature — an educational extravaganza for the Commodore 64 and VIC-20 by Margaret Webb.

Introduction

Recently a letter in Home Computing Weekly asked how a young user could placate his parents who thought he was wasting his time by using his compute in every spare minute (HCW 86) One way would be for his parents to look through the great variety of educational software available and try to stimulate interest in their child.

Educational software comes in many guises, the learning through fun approach, teach and test with rewards or straightforward learn and revise types Within these categories there is a very wide range of programs covering the full age range I have come across programs designed to be used with 18-month-old infants and a language tape which could help both 'O' Level student and middle-aged traveller

All the following categories are a subjective look at some of the range of software available The parent is the best guide to the type of software required He or she knows the main criteria for assessing the range of programs to be looked at before paying out hard cash for the product chosen

These criteria are

1 Subject matter
2 Child's age
3 Temperament — does boredom set in very quickly?
4 Interests — many programs have been written to appeal to certain groups e g BMX Maths, Maths Invaders, Ballooning, Secret Agent

It's best to make a shortlist of tapes and try to see them at your local stockist before buying

To make life easier I have divided the field into three age groups, each with its own requirements although there are several underlying themes

The groups are

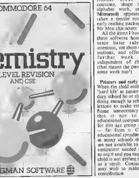
1 Pre-school (one to five-years old)
2 Primary and early secondary (six to 14 years)
3 'O' Level, CSE and beyond

Pre-school

Most parents with pre-school children want to help them get a good grasp of everyday things In fact, the years up to a child's fifth birthday are the most important, since during this time we are building the foundations of learning which will be added to during the rest of the child's life Before the advent of home computers, parents, playgroups and nurseries were doing an excellent job using all the equipment and techniques available Now they have an added dimension with computer software.

Any program for use with young children must be carefully written since the user will have very little grasp of the written word Consequently, great attention must be given to the effective use of graphics and sound to convey ideas

This is not to say that they do not understand a lot — it can be amazing just how much three-year-olds can pick up from the world about them Even before they can speak, they will have heard a lot and stored it away ready for use when the appropriate stimulus comes along Even sitting on mother's knee and hearing her talk about images on the screen a toddler can acquire more knowledge Such an exercise will clearly be more useful if the display is bright, colourful and eye catching Add imaginative sounds and you could be on to a winner



Some of the large publishing firms have recognised an extension of their fields of interest in the software market **Collins** and **Good Housekeeping** have tackled the problem in an ingenious way, using eye catching characters as a basis on which to build good software In Collins' case the star character is Paddington Bear, an easily recognised and lovable character and Collins, in collaboration with Michael Bond, has created a series of packages covering everyday concepts and linking them to Paddington's misadventures

Good Housekeeping adopted a new character called Mr T. Both of these series cover similar areas including counting, shape recognition, alphabet work, and money **Mirrorsoft** appears to have taken a similar route with an early reading package using the Mr Men characters

All the items I have seen from these software houses use the same basic rules attract attention, use short entertaining sections, and offer ideas for further work which is independent of the program (that means the parent must do some work too!)

Primary and early secondary

When the child embarks on the 'hard life' in junior and secondary school he or she should be doing enough in school time or lessons to make extra work at home unnecessary However this is not to say that educational computer programs for this age group are obsolete — far from it Cut-backs in educational spending mean that in many schools the resources are not available to provide the equipment needed or the staff to use it and you might feel your child is not getting the best deal as a result Consequently you may wish to make your own contribution

TODDLER TUTOR
©1984 - DATA COMPUTER WORKS, INC. U.S.A.
From CHANNEL 8 SOFTWARE
THE FRENCH MISTRESS
Identikit
An educational game for 2-8 years
Make 15,000 different faces

Software is available to cover most subjects and the emphasis is mostly on learning through fun Through cunning use of cartoons, arcade action or contemporary crazes, most children can be induced to sit down and learn without noticing what is happening Software houses have latched on to this and produced a range of programs which, for example, teach arithmetic with BMX bikes and kangaroos in mazes (**Longmans**), adverbs with cartoon castles and carrots (**Diskovery**) and reading by tracking spies around Europe (**Hill MacGibbon**) Hill MacGibbon has brought out a series of packages with a thematic approach to learning, combining many basic subject in a game which is fun to play **Piper Software** is marketing similar software incorporating a cassette and Piccolo book

Adventure games deal with the less obvious areas of education such as comprehension, reading, logical and sequential reasoning and mapping techniques **Learning and Training Systems** has a series which includes a space adventure and a 'mathemagic' land one **Creative Sparks** has produced an adventure aimed at eight-year-olds upwards, featuring Dangermouse

Entering the areas of computer literacy and programming, there are packages to introduce children to the serious use of computers **Honeyfold** markets a book/cassette package aimed at the younger child and **Collins** has a paperback book called Datalog which provides hints, exercises and practical aids

'O' Level and CSE

'O' Level and CSE exams can cause a lot of stress, especially as they loom closer and the student realises that he or she is nowhere near prepared for them This is where the computer can come to the rescue Many firms are producing software which deals specifically with exam revision They cover most of the subjects in the exam syllabuses in a variety of styles

Whereas software for younger children places the emphasis on fun, by the time the child has reached the fifth form it's time for hard facts without frills Of course the programmer can extract all the material from text books, but the computer does have the advantage of being interactive This can be like having a private tutor to guide you through the areas of difficulty and reinforce the lessons learnt Generally the programs fell into two broad types

1 Databases offering cross references for revision
2 Mind joggers

As with the younger age groups, the large publishing companies such as **Longmans** and Penguin have seen the potential in this area For years they have produced written revision notes and have now extended the idea to software VIC-20 owners needn't despair since **Commodore** and **Micro-debug-Consultancy** offer a range of packages

Before discussing packages in detail, it is germane to comment on the relative quantities of material available It will be quite evident that most software discussed is for the 64 The large amount of available memory and the superior graphics capabilities make the 64 an ideal machine for education The VIC 20 on the other hand, is rather limited in both these areas and it is inevitable that it will receive less attention from software houses Most packages for the VIC will require some form of memory expansion

Grading this software has been difficult as most of it is of a very high standard I have chosen three criteria and given percentage ratings to give a guide The criteria are

1 Graphics — covering presentation of both text and graphics
2 Sound
3 Content — varies with age range

The overall rating is given in terms of stars
★ Poor
★★ Average
★★★ Good
★★★★ Very good
★★★★★ Excellent

Brief Reviews

Pre-school

Mr T's Shape Games (Good Housekeeping) £9 95 Cassette CBM 64
Side 1 Match up shapes Can be played by child alone
Side 2 Picture maker using simple shapes
Graphics 95% Sound 70%
Content 90% Overall ★★★★

Mr T's Alphabet Games (Good Housekeeping) £9 95 Cassette CBM 64
Side 1 Shows letter formation
Side 2 Tests letter recognition and matching
Graphics 95% Sound 70%
Content 90% Overall ★★★★

Mr T's Number Games (Good Housekeeping) £9 95 Cassette CBM 64
Early counting and letter recognition (up to nine) and two games to test this knowledge Great fun putting the spots back on a ladybird — musical rewards
Graphics 95% Sound 85%
Content 90% Overall ★ ★ ★ ★

Identikit (Stell) £7 95 Cassette CBM 64
Remembering and building faces on screen
Graphics 40% Sound 30%
Content 50% Overall ★ ★

Party Time (Cleverclogs APS) Cassette CBM 64
Six games to play with your toddler Learn numbers, letters and sing nursery rhymes
Graphics 95% Sound 75%
Content 80% Overall ★ ★ ★

Toddler Tutor (Channel 8) £6 95 Cassette CBM 64
Match colours and letters Learn the alphabet to music Count toys
Graphics 80% Sound 80%
Content 80% Overall ★ ★ ★ ★

Count with Oliver (Mirrorsoft) £7 95 Cassette CBM 64
Help Oliver count toys and sweets Simple addition and subtraction with cartoon character
Graphics 80% Sound 70%
Content 75% Overall ★ ★ ★

Look Sharp (Mirrorsoft) £7 95 Cassette CBM 64
Side 1 Matching, odd-one-out, memory testing
Side 2 For older children, same games but using space travel
Graphics 80% Sound 40%
Content 80% Overall ★ ★ ★

Match up (Diskovery) £15 Disk CBM 64
Learn the letters of the alphabet Match letters and symbols, which float across the screen, with the one in your basket
Graphics 75% Sound 65%
Content 45% Overall ★ ★

Paddington's Garden Game (Collins) Cassette CBM 64
Learn to move Paddington around a colourful garden maze catching butterflies
Graphics 95% Sound 75%
Content 90% Overall ★ ★ ★ ★

Paddington's Shopping Mixup (Collins) £7 95 Cassette CBM 64
Fun helping Paddington sort his shopping Counting
Graphics 90% Sound 75%
Content 90% Overall ★ ★ ★ ★

What's the Time (Collins) £9 95 Cassette CBM 64
Makes telling the time easy even for the youngest child Both digital and analogue clocks Needs helper
Graphics 90% Sound 85%
Content 85% Overall ★ ★ ★

Flashcards and Spelling (Todd Jersoft) £4 50 Cassette CBM 64
Automated flashcards with matching graphics for use even with the very young
Graphics 95% Sound 90%
Content 95% Overall ★ ★ ★ ★ ★

Not seen

Mr T's Measuring Games (Good Housekeeping) £9 95 CBM 64

Mr T's Money Box (Good Housekeeping) £9.95 CBM 64

Mr T Tells the Time (Good Housekeeping) £9 95 CBM 64

First Steps with the Mr Men (Mirrorsoft) £7 95 CBM 64

Paddington's Early Visit (Collins) £7.95 CBM 64

Paddington's Problem Picture (Collins) £7 95 CBM 64

First Numbers (Collins) £9 95

Primary and secondary school

The Alphabet (Commodore) £9 99 Cassette VIC 20 + 8K
Rudiments of alphabet Teaches letters and their sounds
Graphics 40% Sound 40%
Content 40% Overall ★ ★

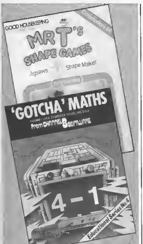
Arithmetic 2 (Commodore) £9 99 Cassette VIC 20 + 8K
Basic number work 0 to 20 Counting and number recognition Multiplication and division Counting in twos, threes and fours Test games
Graphics 40% Sound 40%
Content 40% Overall ★ ★

Vocabulary (Commodore) £9 99 Cassette VIC-20 + 8K
One hundred commonly used words to help build vocabulary Test section
Graphics 80% Sound 40%
Content 40% Overall ★ ★

Reading (Commodore) £9 99 Cassette VIC 20 + 8K
Covers word and sentence building, comprehension, vocabulary and spelling
Graphics 50% Sound n/a
Content 50% Overall ★ ★

Arithmetic (Commodore) £9 99 Cassette VIC-20 + 8K
Tests all aspects of basic maths
Graphics 80% Sound 40%
Content 90% Overall ★ ★ ★

Car Journey
CREATIVE SPARKS
DANGER MOUSE
IN THE BLACK FOREST CHATEAU
WORD POWER
VOCABULARY & SPELLING
ENGLISH
Commodore 64



Number Gulper (ASK) Cassette VIC 20
Collect numbers to make a predetermined total using the four rules of numbers
Graphics 80% Sound n/a
Content 90% Overall ★★★

Paddington and the Disappearing Ink (Collins) £7 95 Cassette CBM 64
Helps seven to nine year olds with writing Simple word processor and gazzeteer of South America
Graphics 85% Sound 70%
Content 90% Overall ★★★★

Know your Tables (Collins) £9 95 Cassette CBM 64
Helps teach tables (old fashioned but necessary) Timed tests
Graphics 80% Sound n/a
Content 90% Overall ★★★

Primary Maths (Channel 8) £6 95 Cassette CBM 64
Single and double-column addition and subtraction with graphical representation of numbers as dots grouped in tens and units
Graphics 95% Sound 70%
Content 90% Overall ★★★

Maths Tutor (Channel 8) £6 95 Cassette CBM 64
Follows on from Primary Maths Addition and subtraction to 9999 Multiplication and division with tests
Graphics 80% Sound 70%
Content 90% Overall ★★★

Maths Invaders (Stell) £7 95 Cassette CBM 64
Space Invaders in disguise Sheet the sums with the answers
Graphics 75% Sound 75%
Content 75% Overall ★★★

Monster Maths (Shards) £6 95 Cassette CBM 64
Five different maths games Lots of fun Enter your friend's name, get the sums right and see the monster eat your friend!
Graphics 80% Sound 80%
Content 85% Overall ★★★★

Fun to Learn (Shards) £6 95 Cassette CBM 64
Five games covering numbers and words
Graphics 80% Sound 80%
Content 85% Overall ★★★★

Decimals (Chalksoft) £9 25 Cassette CBM 64
Dry, drill-like lessons in decimals
Graphics 90% Sound n/a
Content 75% Overall ★★

Word Wobbler (Longmans) Cassette CBM 64
A spelling bee using letters on a grid as meanies trying to catch you 1500 word vocabulary and you can add your own 8 years +
Graphics 80% Sound 85%
Content 85% Overall ★★★

BMX Number Jump (Longmans) Cassette CBM 64
Jump your bike over the gate with the answer to the sum at the top of the screen Watch out for the Kangaroos 6-10 years
Graphics 85% Sound 65%
Content 86% Overall ★★★

3D Hypermaths (Longmans) Cassette CBM 64
Avoid the meteors and get the sums right Fast and furious 8 years +
Graphics 90% Sound 80%
Content 90% Overall ★★★★

The Wordbird (Diskovery) £14 95 Disc CBM 64
Animated cartoon sequences help with propositions 6-12 years
Graphics 95% Sound 75%
Content 75% Overall ★★★

Time Zone (Diskovery) £14 95 Disc CBM 64
Cartoons illustrate time and extend vocabulary and use of before, after etc 6-12 years
Graphics 95% Sound 75%
Content 75% Overall ★★★

Word Feud (Audiogenic) Cassette CBM 64
Find the matching word in the word square before the computer
Graphics 80% Sound 60%
Content 75% Overall ★★★

Run Rabbit Run (Hill MacGibbon) £6 95 Cassette CBM 64
Fun game which helps to strengthen logic and arithmetic skills Guide rabbits to their burrows avoiding the fox 8 years +
Graphics 75% Sound n/a
Content 75% Overall ★★★

Ballooning (Hill MacGibbon) £9 95 Cassette CBM 64
Basic scientific and mathematic skills are used as you learn to fly and land a balloon 8 years +
Graphics 70% Sound 50%
Content 75% Overall ★★

Car Journey (Hill MacGibbon) £9 95 Cassette CBM 64
Learn map reading, route planning and use mathematical skills to run a profitable road delivery service 9 years +
Graphics 75% Sound 60%
Content 80% Overall ★★★

Secret Agent (Hill MacGibbon) £9 95 Cassette CBM 64
Great fun as you read coded messages and chase around the capitals of Europe trying to outwit an enemy agent 9 years +
Graphics 85% Sound 60%
Content 90% Overall ★★★★

Punctuation Pete (Hill MacGibbon) £9 95 Cassette CBM 64
Good clear graphics are used to test punctuation as you correct a page on the screen On the reverse of the cassette is a thesaurus and a hangman game Good value 9 years +
Graphics 85% Sound 60%
Content 90% Overall ★★★★

Brief Reviews

Pre-school

French Mistress (level A) (Kosmos) Cassette CBM 64
A language lesson which will help school children and tourists alike Teaches and tests vocabulary
Graphics 75% Sound 50%
Content 85% Overall ★★★

German Master (level B) (Kosmos) Cassette CBM 64
This second level cassette teaches and tests vocabulary and grammar
Graphics 75% Sound 50%
Content 85% Overall ★★★

Danger Mouse and the Black Forest Chateau (Creative Sparks) Cassette CBM 64
A easy to use adventure with lovely pictures of DM and Penfold
Graphics 90% Sound n/a
Content 85% Overall ★★★★

Kids on Keys (Spinnaker) £9 95 Cassette CBM 64
Teaches the child where letters are on the keyboard plus simple reading games 3 to 9 years
Graphics 90% Sound 80%
Content 90% Overall ★★★★

Make a Face (Spinnaker) £9 95 Cassette CBM 64
Fun as you create faces from the bank of noses, ears etc Faces can be animated Memory game 3 to 6 years
Graphics **90%** Sound **50%**
Content **90%** Overall ★★★★

Story Machine (Spinnaker) £9 95 Cassette CBM 64
Write simple stories and watch the machine illustrate them Find out how "the Bumpus zots the boy" 5 to 9 years
Graphics **90%** Sound **85%**
Content **90%** Overall ★★★★

Up and Add 'Em (Fisher Price) £9 95 Cartridge CBM 64
Teach 3 to 7 year olds simple number skills while watching jumping rabbits and other animals
Graphics **90%** Sound **90%**
Content **90%** Overall ★★★★

Number Tumblers (Fisher-Price) £9 95 Cartridge CBM 64
A fast-moving game in which you jump about a grid solving arithmetical problems
Graphics **95%** Sound **90%**
Content **95%** Overall★★★★★

Not seen

Master Maths (LCL) £90

Micro Maths (LCL) £24 50

Animated Arithmetic (LCL) £6 50

French 64 (Dynamite) £12 95

German 64 (Dynamite) £12 95

Your Adventure (LTS) £10 95

Mathemagic Land (LTS) £8 95

Space Adventure (LTS) £11 95

Commodore has a wide range of CBM 64 software for all age groups Insufficient time to get review samples

'O' Level and CSE

Biology (Longmans) Cassette CBM 64
Revision check list Detailed revision of heredity, food and skeleton. Well thought out
Graphics **85%** Sound n/a
Content **90%** Overall ★★★★

Chemistry (Longmans) Cassette CBM 64
General and detailed revision
Graphics **85%** Sound n/a
Content **90%** Overall ★★★★

Mathematics (Longmans) Cassette CBM 64
General and detailed revision
Graphics **85%** Sound n/a
Content **90%** Overall ★★★★

Physics (Longmans) Cassette CBM 64
General and detailed revision
Graphics **90%** Sound n/a
Content **90%** Overall ★★★★

French (Longmans) Cassette CBM 64
Tests grammar, translation and teaches some geography
Graphics **90%** Sound n/a
Content **85%** Overall ★★★★

Computer Studies (Longmans) Cassette CBM 64
General and detailed revision
Graphics **85%** Sound n/a
Content **90%** Overall ★★★★

Romeo and Juliet (Penguin) Cassette CBM 64
Database approach to revising Shakespeare Cross reference facility is ideal aid to essay writing
Graphics **80%** Sound n/a
Content **95%** Overall ★★★★

Twelfth Night (Penguin) Cassette CBM 64
Database approach to revising Shakespeare Cross reference facility is ideal aid to essay writing
Graphics **80%** Sound n/a
Content **95%** Overall ★★★★

Not seen

Physics (Micro-de-Bug Consultancy) VIC 20

Biology (Micro-de-Bug Consultancy) VIC-20

Maths (CSE) (Micro-de-Bug Consultancy) VIC-20

Commodore has a wide range of CBM 64 software for all age groups Insufficient time to get review samples

Biographical Note

Margaret Webb is a qualified teacher with 11 years experience in the teaching of infants, juniors and children of all ages with learning and behavioural difficulties She is currently a freelance author and software reviewer She has two children who served as willing testers of the software described in this supplement

Acknowledgements

I would like to give my thanks to all the software houses who supplied material and literature with such alacrity

Addresses

Argus Press Software, No 1 Golden Square, London W1A 3AB

DISKOVERY
THE WORD BIRD
C 64 DISK
ON
IN BEHIND
BESIDE ABOVE UNDER
COLLINS SOFTWARE
What's the Time?
Commodore 64
COLLINS SOFTWARE
Michael & Karen Bond and Peter McBride
Paddington's Shopping Mix-Up
Commodore 64

EDUCATIONAL SPECIAL

Applied Systems Knowledge, London Hse, 42 Upper Richmond Rd, London SW14 8DD

Audiogenic, 39 Suttons Ind Park, London Rd, Reading RG1 6AZ

Chalksoft, 37 Willowslea Rd, Worcester WR3 7QP

Channel 8, 51 Fishergate, Preston, Lancs PR1 8BH

Collins, 8 Grafton St, London W1X 3LA

Commodore Business Machines 1 Hunters Rd, Weldon, Corby, Northants N17 1QX

Creative Sparks, Thomson Hse, 262 Farnborough Rd, Farnborough GU14 7NU

Diskovery, (Softchoice), 52 Platts La, Hampstead, London NW3 7NT

Dynamite Software, BCM 8713, London WC1N 3XX

Ebury Software, National Magazine House, 72 Broadwick St, London W1V 2BP

Fisher-Price, see Spinnaker

Good Housekeeping, see Ebury Software

Hill MacGibbon, St Bartholomew Hse, 92 Fleet St, London EC4

Kosmos Software, 1 Pilgrims Cl, Hartington, Dunstable, Beds LU5 6LX

LCL, 26 Avondale Ave, Staines, Middx

Learning and Training Systems, Haydon Hse, Alcester Rd, Studley, Warwicks B80 7AP

Longman Software, Longman Hse, Burnt Mill, Harlow, Essex CM20 2JE

Mirrorsoft Mirror Group Newspapers, Holborn Circus, London EC1P 1DQ

Shards, Ste G, Roycraft Hse, Linton Rd, Barking, Essex

Softsel Central Way, N Feltham Trading Est, Feltham, Middx

Spinnaker, WHS Distributors, St Johns Hse, East Leicester LE1 6EB

Stell, 36 Limefield Ave, Whalley, Lancs

Sulis, 4 Church St, Abbey Green, Bath, Avon BA1 1NL

Toddlersoft, 1 Cat La, Cottage, Ewelme, Oxon

PARCO Electrics

CASSETTE SOFTWARE

4 DORSET PLACE, NEW STREET, HONITON
DEVON EX14 8QS. TELEPHONE (0404) 44425

AMSTRAD CPC 464 SOFTWARE
ROLLABALL
TIMESLIP

ROLLABALL £6.95

A challenging game of skill relying on quick wits and steady nerves. Can you keep the ROLLABALL in motion?

All you have to do is slide a piece of track in its path to divert it; trouble is the tracks always disappear when the ROLLABALL moves over them. A very addictive one player game.

THE ROYAL QUEST £6.95

Can you discover the object of your quest and then complete it? A classic text only adventure with dozens of problems to keep you perplexed for weeks. Features include save game facility and very large vocabulary.

THE MOORS CHALLENGE £6.95

An ancient game of strategy and cunning. Capture all your opponents counters to win. Play against your Amstrad CPC 464 at any of five skill levels from simple to advanced or play against a friend; you can even make the computer play against itself.

Send cheque/P.O.s payable to

TIMESLIP
SOFTWARE

STONEYBURN WORKSHOPS
THE OLD PRIMARY SCHOOL
STONEYBURN WEST LOTHIAN EH47 8AP

Legends for adventurers

Mythical characters of long ago provide the setting for more excitement

King Arthur's Quest Sprectrum 48K £7.95

Hilly MacGibbon, 92 Fleet Street, London EC4Y 1DH

Adventure games seem to be gaining in sophistication by the day. It is rather strange then that this game seems to have a number of the newer features, mixed with older and less attractive ones. In its favour are the range graphics, which are display the location along with those in front in a fan shape.

There is also part of the screen that is kept for the objects that you have found and picked up along the way. The game is played on an eight section board, each with a 10 by 10 grid size. This cannot all be held in memory at once so that you must reload part way through.

The features that aren't so attractive, are the lack of input options which the game offers. These are reduced to 10 and each is placed on a single number key. There are no room descriptions in the traditional sense either but there are plenty of objects and locations to keep your interest.

I cannot see this being a hit with the more serious adventure players but it will attract children. **D C**

instructions	75%
playability	80%
graphics	90%
value for money	85%

★ ★ ★ ★

Borrowquest Spectrum 48K £5.95

CCS, 14 Langton Way, London SE3 7TL

Sold as an adventure game, this is not what most people would expect of an adventure. It is more like a fusion of maze and adventure games and has much more in common with the Valley.

The action takes place in real time and you have a graphical screen showing location and type of land that surrounds you. The aim is to recover Sartraks Stone and in order to do so you must wander all over the Borderland collecting the objects and tools that will allow you do so.

A great deal of the searching is in barrows, the burial mounds of a race now long dead. These comprise a number of labyrinthine passages and levels and there are only two ways out. The first is to enter another barrow, the second to find some x-pills and walk through a wall.

There are plenty of monsters who don't like the look of you and a number of weapons to find which appear on the screen when collected. The save game facility is essential in this good but not terribly addictive game. **D C**

instructions	75%
playability	70%
graphics	75%
value for money	70%

★ ★ ★

Aztec, Hunt for the Sun God Spectrum 48K £7.95

Hill MacGibbon, 92 Fleet Street, London EC4Y 1DH

Designed as an educational adventure for children and programmed by the education specialists Five Ways Software you might expect a great deal from this. It is well packaged and the box contains the cassette, instructions and a poster which includes a code breaking chart.

You can play the part of Quick-lizard who awakes from a dream to find that all the people of his village have disappeared and so has the sun.

You are given a view of your surroundings in a three dimensional perspective and can move forward or turn in either direction. All the possible options are placed on the number keys and a keyboard template supplied.

If you pick up an object it is shown on the right of the screen which is a nice touch. If you find a compass, the direction that you are facing is indicated on the compass and this changes as you turn around.

The speed of the graphics is slow but this is only a minor problem. The instructions are only fair, there is a buzz every so often but nowhere is this explained or mentioned.

instructions	75%
playability	75%
graphics	85%
value for money	80%

★ ★ ★ ★

Sherlock CBM 64 £14.95

Melbourne Hse, 39 Milton Trading Est, Abingdon, Oxon OX14 4TD

The setting is London, in Victorian England. You start off at home in Baker Street at 8am one Monday morning. On leaving your house you must hail a cab, set off to find a crime and then solve it.

To move between the many sections of the game you have to take cabs. You tell the cabbie where in London you want to go and then wait until you arrive at your destination. The problem with this is that you must know the places where Sherlock would go to — if you don't then the game comes to a standstill because you can't go very far on foot.

Just like its predecessor The Hobbit, you should enter instructions in full sentences. Some screens have a small picture although all have detailed descriptions.

The game is hard and will take months of playing to complete. Any buyers should bear in mind that reading Sherlock Holmes books might help. **K I**

instructions	70%
display	85%
ease of use	80%
value for money	90%

★ ★ ★ ★

Zenji CBM 64 £9.99

Activision, 15 Harley House, Marylebone Rd, Regents Park, London NW1

This game should come with a government health warning — it destructs your joysticks, makes you unpopular with the rest of the family at peak TV viewing times and eventually drives you insane.

On screen there is a grid of elements pipes, bends and joins. You may move along these elements and rotate them about their central points. Eventually you should be able to join them all together so that they are connected to the central element on the grid. Now Zenji occurs — your aim in the game.

If it sounds easy then believe me — it isn't. When you turn one element you may in some cases disconnect half of the elements from the central one.

To make the game harder there are creatures which move around the elements and sometimes fire at you. Touching either of these will cause you to lose your life.

The graphics are simple but very effective. A point to note is that every time you turn an element the whole screen has to be updated. This is done very fast and there is no noticeable loss in speed. **K I**

instructions	70%
playability	90%
graphics	100%
value for money	100%

★ ★ ★ ★ ★

Interfacing machine code to BASIC

Allen Webb leads you through the fundamental principles involved in his article on machine code and BASIC

There seems to be a lot of snobbery attached to the use of machine code as a programming medium Most of it comes from the software houses which deal in arcade games The simple fact is that whilst machine code is vital for real time games with fancy graphics, it is not a necessity for all software. For example, I can recall using a well known commercially written database which, apart from a SORT routine, used BASIC In the hands of a competent programmer using efficient algorithms, high level languages are a perfectly good medium for writing efficient programs

Occasionally, however, you will need a piece of fast graphics or perhaps a fast SORT or data acquisition routine which must be written in machine code Such is life the problem then becomes how to link the routine to BASIC in the most efficient way. Fortunately, CBM computers are sufficiently flexible to offer a range of interface techniques The main problem is how to transfer data to and from the machine code There are three simple methods available

The most usual approach is to POKE the data into an area of memory from which the machine code calls the data as required This method limits you to values from 0 to 255 The VIC (and Commodore 64) have the added option of locations accessed by the 6502's registers during an SYS call (7600 holds accumulator, 781 holds X register, 782 holds Y register and 783 holds the status register) This offers a simple means of data access For example, to print a star at coordinates X,Y try

```
POKE781,Y POKE782,X
   POKE783,0 SYS65520
   PRINT CHR$(42)
```

The SYS command transfers the contents of these memory locations to the various 6502 registers when called and returns the current values of the registers on returning to BASIC Consequently the SYS call can transfer up to three parameters to and from a machine code routine

The USR command is a means of transferring one floating point number (in the range 0 to 65535) The routine takes the parameter Z in Y=USR(Z), converts it to floating point format and sticks it into floating point accumulator #1. If you are using non integers, there are a range of floating point routines available If you are using integers, a call to $D7F7 will convert the number to integer and put it in $14 and $15

The most versatile technique is to create your own BASIC command e.g. SYS Z,A,B, would let pass two floating point numbers (A & B) to the routine at Z What you must do is extract the data from the command with listing 1

Listing 1

```
JSR $0079  CHARGOT routine
   fetches current byte in
   command
JSR $CEFD  CEKCOM, is it a
   comma? if not print SYN-
   TAX ERROR
JSR $CD8A  evaluate express
   ion test and reject if non
   numeric
JSR $D7F7  convert number to
   integer in $14 & $15
LDA $14
STA M1
LDA $15
STA M2
```

The last four instructions save the parameter in RAM You must repeat this sequence for each parameter The flexibility of this method is that expressions can be used, e.g SYS Z, 5*SIN(A), Y 1.5 would be accepted.

For the adventurous, the ideal means of transferring data is by using the BASIC variables Don't panic, it's quite easy Normal variables are stored as seven bytes The first two bytes hold the ASCII values of the name If the name is only one character then the second byte is zero e.g. for variable A, the bytes are 65 and 0 The other five bytes are the value of the variable Listing 2 shows how to extract the value of the variable as an integer The call to $D0E7 finds the variable whose name is in $45 and $46 and puts its address in $47 and $48. The call to $DBA2 loads floating point accumulator #1 with the floating point number located at the address in $47 and $48 The rest is obvious.

Well, there you have it Try messing about with these techniques, I am sure it will improve your programming efforts

Listing 2

Routine to convert variable A to an integer and store the result in memory locations M1 and M2

```
LDA #65      REM A .first
   letter of variable's name
STA$45
LDA #0       REM No second
   letter
STA $46
JSR $D0E7   REM find variable
   A
LDA $47   REM least significant
   byte of A's address
LDY $48   REM most significant
   byte of A's address
JSR $DBA2   REM load A into
   Floating Accumulator #1
JSR $D7F7   REM convert FAC
   #1 to integer in $14,$15
LDA $14
STA M1
LDA $15
STA M2
RTS
```

So you've created your finest master-piece, a combination of BASIC with some machine code graphics The only problem is where to put the machine code so that it won't be corrupted and how can it be loaded with the BASIC Fear not, the versatile VIC (and Commodore 64) have several solutions to your problem

Let us first take an idea from the Sinclair machines Type in listing 1 at the end of this article and run it (without any memory expansion) What does it do? The REM has reserved a series of bytes as asterisks Line 10 loads the machine code into this space A nice, easy technique provided that you use no zero bytes (interpreted as end of line by the computer) and your code is less than 99 bytes long Perhaps your code is a little longer?

Due to the stable nature of, the memory map in the VIC, it is possible to reserve areas for your code These areas are commonly used i) The cassette buffer the area 828-1019 ($033C-$03FB) This area is over-written if you use the cassette ii) Lower the top of memory Listing 2 will reserve space for BY bytes of code starting at location CS iii) Raise the start of BASIC Listing 3 will reserve space for BY bytes starting at CS This routine should be run before loading the main program

Having reserved a piece of memory, the usual approach is to read the code from data statements and POKE it into the reserved area If your code is too large to put into data statements, you could save it by using the SAVE command in a machine code monitor The code can then be loaded direct from the BASIC program Since the program will be re-run automatically when the code is loaded, you should use a flag to allow for this (listing 4)

The really slick way of doing the job is to tack the code to the top of the BASIC and SAVE or LOAD them together First locate the end of BASIC (start of variables) by PEEKing locations 45 and 46 Locate the code so that it starts at this address SAVE the portion of code from the start of BASIC (locations 43 & 44) and finish at the end of the machine code plus 1 You should take care, however, since altering the BASIC will corrupt the code.

So, as you can see, you are really spoilt for choice In my experience, most programmers use either the data statement method or the direct loading technique Saving the BASIC and code together is probably best but it requires the greatest amount of care

Listing 1

```
0 GOTO 10
5 REM*********************
  ************************
  *****************
10 FOR I = 4110 TO 4124
   READ X POKE I,X NEXT
20 DATA 162,1,138,157,0,30,
   169,6,157,0,150,232 208,244,
   96
30 SYS 4110
```

Listing 2

```
10 MEMTOP = PEEK(46)*256
   + PEEK(45)
20 SC = MEMTOP  BY
30 POKE 46 SC/256 POKE 45,
   (SC AND 255)
```

Listing 3

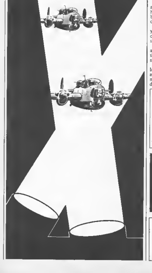
```
10 SC = PEEK(46)*256 +
   PEEK(43)
20 NES = SC + BY
30 POKE 642, NES/256 POKE
   641, (NES AND 255) SYS
   644824
```

Listing 4

```
10 IF PEEK(1)=255 THEN 30
   REM TEST FLAG TO SEE
   IF CODE IS LOADED
20 POKE 1,255 LOAD"YOUR
   CODE",1,1
20 REM REST OF BASIC
```

Chocks away!

You need all your skill and very fast reactions to succeed in this game by James Hardie. You can take part in World War II action



This game takes you into the danger-filled skies above occupied Europe during World War II

Your skills as a fighter pilot are really put to the test as you have to destroy 10 enemy bombers to prevent them dropping their lethal cargo.

You are given a view from your cockpit window and you chase the bombers through the sky one at a time.

Use the cursor keys to move and once the enemy plane is in the centre of the screen use the space bar to shoot it down

Remember that since you are looking out of your plane, the enemy plane seems to be moving up when you move down and vice versa.

How it works

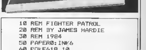
50 chooses colours
60 turns off key/click cursor
70-80 subroutines for instructions
100-180 set up main variables
200-299 set up screen
300-320 move enemy aircraft via subroutine
340-350 decrease fuel print status report
400-460 read keyboard, move enemy plane or shoot
999 repeat
1000-2000 move enemy
3000-3050 shoot routine
5000-5999 hit routine
7000-7999 instructions
8000-8340 user defined graphics
9000-9930 end messages

Variables

A$-E$ parts of enemy aircraft
F$-H$ screen
AC$ aircraft body
T$ tail
x,y position of aircraft
M$,N$ bullets
FU fuel
AM ammunition
HI hits
SK% skill level

Hints on conversion

PAPER/INK set background/foreground colours
PLOT x,y equivalent to **PRINT AT**
KEY$ reads keyboard
POKE 618,10 turns off key/click cursor
EXPLODE pre defined sound
SOUND/PLAY sound commands which can be removed or replaced



```
10 REM FIGHTER PATROL
20 REM BY JAMES HARDIE
30 REM 1984
50 PAPER0:INK6
60 POKE618,10
70 GOSUB7000
```

```
80 GOSUB8000
100 A$=" gh  "
105 A1$="     "
110 B$=" ı ȷ "
120 C$=" klm "
130 D$="nopq "
140 E$="rstuv"
150 F$=" & & & & & & & & ab & & & & & & & & & "
160 G$=" & & & & & & & & cd & & & & & & & & & "
170 H$="-                                      -"
180 X=20:Y=10:AC$=A$
200 CLS
205 FORC=1TO22:PRINT:NEXTC
210 PLOT1,0,F$
220 PLOT1,20,G$
230 FORC=1TO20STEP2:PLOT1,C,H$:NEXTC
240 PLOT1,10,"f"
250 PLOT30,10,"e"
260 FORC=48080TO49000STEP40:POKEC,21:POKEC+1,4: NEXTC
270 POKE616,22:PRINT"AMMUNITION=";AM;" HITS=";HI;" FUE
L=";FU
290 PLOT19,10,A$
300 GOSUB1000
310 PLOTX,Y,AC$
320 PLOTX,Y-1,T$
340 FU=FU-1:IFFU=0THEN9700
350 POKE616,22:PRINT"AMMUNITION=";AM;" HITS=";HI;" FUE
L=";FU
400 K$=KEY$
410 IFK$=CHR$(32)THENGOSUB3000
420 IFK$=CHR$(11)THENY=Y+1:PLOTX,Y-2,"      ":PLOTX,Y-1
,"      ":IFY>18THENY=18
430 IFK$=CHR$(10)THENY=Y-1:PLOTX,Y+1,"      ":IFY<3THEN
Y=3
440 IFK$=CHR$(8)THENX=X+1:PLOTX-1,Y,32:PLOTX-1,Y-1,32:
IFX>32THENX=32
450 IFK$=CHR$(9)THENX=X-1:PLOTX+5,Y,32:IFX<3THENX=3
460 PLOTX,Y,AC$:PLOTX,Y-1,T$
999 GOTO300
1000 RN=INT(RND(1)*6)+1
1010 IFRN=1THENX=X-1:PLOTX+5,Y,32:IFX<3THENX=3
1020 IFRN=2THENX=X+1:PLOTX-1,Y,32:PLOTX-1,Y-1,32:IFX>3
2THENX=32
1030 IFRN=3THENY=Y-1:PLOTX,Y+1,"      ":IFY<3THENY=3
1040 IFRN=4THENY=Y+1:PLOTX,Y-2,"      ":PLOTX,Y-1,"
":IFY>18THENY=18
1050 IFRN=5ANDAC$=A$THENAC$=C$:T$=B$
1060 IFRN=5ANDAC$=C$THENAC$=E$:T$=D$
1070 IFRN=5ANDAC$=E$THEN1000
1080 IFRN=6ANDAC$=A$THEN1000
1090 IFRN=6ANDAC$=C$THENAC$=A$:T$=A1$
1100 IFRN=6ANDAC$=E$THENAC$=C$:T$=B$
2000 RETURN
3000 M$="/":D=0:E=29:N$="\"
3005 AM=AM-1:IFAM=0THEN9000
3010 FORC=19TO10STEP-1:D=D+1:E=E-1
3015 IFM$="/"THENSOUND1,1,9:SOUND4,1,15:PLAY1,1,0,0
3020 PLOTD,C,M$:PLOTE,C,N$
3030 IFM$="/"THENPLAY0,0,0,0
```

```
 3032 NEXT
 3035 S=SCRN(18,9):IFS=103ORS=104ORS=107ORS=108ORS=109T
HENGOTO5000
 3037 IFS=115ORS=116ORS=117THENGOTO5000
 3040 IFM$="/"THENM$=" ":D=0:N$=" ":E=29:GOTO3010
 3050 RETURN
 5000 PLOT14,9,CHR$(1)+"  ywxz  "
 5010 PLOT14,8,CHR$(1)+"   {|   "
 5020 PLOT14,10,CHR$(1)+"   %}   "
 5030 FORC=1TO50:EXPLODE:NEXT
 5040 HI=HI+1:IFHI=10THEN9500
 5050 X=20:Y=10
 5060 GOTO200
 5999 END
 7000 CLS
 7010 PLOT9,1,CHR$(10)+CHR$(1)+"FIGHTER PATROL"
 7020 PLOT9,2,CHR$(10)+CHR$(6)+"FIGHTER PATROL"
 7030 PRINT:PRINT:PRINT:PRINT:PRINT"THE OBJECT OF THIS
GAME IS TO SHOOT "
 7040 PRINT"DOWN 10 HIGHLY MANOEUVRABLE AIRCRAFT"
 7050 PRINT"WHICH HAVE JUST BOMBED YOUR AIRFIELD."
 7060 PRINT"TO DO THIS YOU MUST MOVE YOUR AIRCRAFT"
 7070 PRINT"USING THE CURSOR KEYS UNTIL THE ENEMY"
 7080 PRINT"APPEARS IN THE CENTRE OF THE SCREEN,"
 7090 PRINT"AND THEN SHOOT IT DOWN USING THE SPACE"
 7100 PRINT"BAR. UNFORTUNATELY YOU HAVE LIMITED "
 7110 PRINT"FUEL AND AMMUNITION TO COMPLETE YOUR"
 7120 PRINT"TASK"
 7130 PRINT:INPUT"INPUT SKILL LEVEL 1-10 (10=EASY)";SK%
 7140 IFSK%>10ORSK%<1THEN7000
 7150 AM=SK%*10:FU=SK%*100
 7900 RETURN
 7999 END
 8000 FORC=46080+(97*8)TO46080+(125*8)+7
 8010 READDTA:POKEC,DTA:NEXT:GOTO8310
 8020 DATA63,31,15,7,3,1,0,0'a
 8030 DATA62,60,56,48,32,0,0,0'b
 8040 DATA0,0,1,3,7,15,31,63'c
 8050 DATA0,0,0,32,48,56,60,62'd
 8060 DATA0,4,12,28,60,28,12,4'e
 8070 DATA0,8,12,14,15,14,12,8'f
 8080 DATA4,4,5,14,62,1,0,0'g
 8090 DATA8,8,40,28,31,32,0,0'h
 8100 DATA0,0,0,0,0,2,2,2'i
 8110 DATA0,0,0,0,0,32,32,32'j
 8120 DATA2,2,7,7,63,63,0,0'k
 8130 DATA28,28,35,35,35,35,28,28'l
 8140 DATA32,32,48,48,63,63,0,0'm
 8150 DATA0,0,0,0,0,0,0,1'n
 8160 DATA16,16,16,16,17,17,17,62'o
 8170 DATA0,0,0,0,60,60,60,3'p
 8180 DATA32,32,32,32,32,32,32,56'q
 8190 DATA1,1,63,63,63,0,0,0'r
 8200 DATA62,62,62,62,62,1,1,1's
 8210 DATA3,3,3,3,3,60,60,60't
 8220 DATA56,56,63,63,63,0,0,0'u
 8230 DATA0,0,48,48,48,0,0,0'v
 8240 DATA57,6,27,22,43,10,20,33'w
 8250 DATA18,52,44,58,46,52,43,51'x
 8260 DATA32,26,4,5,63,1,10,4'y
 8270 DATA8,20,32,63,40,0,22,1'z
 8280 DATA4,2,36,40,37,21,11,9
 8290 DATA8,8,8,8,36,41,21,22
 8300 DATA36,52,42,40,5,9,16,8
 8310 FORC=46080+(37*8)TO46080+(38*8)+7
 8320 READDTA:POKEC,DTA:NEXT:RETURN
 8330 DATA26,42,37,9,4,4,4,4
 8340 DATA4,4,4,4,4,4,4,4
 9000 CLS
 9010 PRINT"YOU RAN OUT OF AMMUNITION, BUT YOU DID"
 9020 PRINT"MANAGE TO SHOOT DOWN ";HI;" ENEMY AIRCRAFT"
 9030 GOTO9900
 9500 PLOT8,11,CHR$(10)+CHR$(1)+"CONGRATULATIONS"
 9510 PLOT8,12,CHR$(10)+CHR$(1)+"CONGRATULATIONS"
 9520 WAITS00:CLS:GOTO9900
 9700 FORC=1TO255:PAPERINT(RND(1)*8):EXPLODE:NEXT:PAPER
0
 9710 CLS:PRINT"YOU RAN OUT OF FUEL AND THEREFORE"
 9720 PRINT"CRASHED. BUT YOU DID HIT ";HI;" ENEMY AIRCR
AFT"
 9730 GOTO9900
 9900 PRINT:PRINT:PRINT"    DO YOU WANT ANOTHER GO?(Y/N)
"
 9910 GETZ$:IFZ$="Y"THENRUN
 9920 IFZ$="N"THENCLS:END
 9930 GOTO9910
```

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Action package

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Sound Effects 16K Spectrum £6.95

Llanlan, Pontyberem, Llanelli,
Dyfed SA15 5HP

The sound commands on the Spectrum are not easy to use from BASIC, so I have tried using them from machine code.

This program offers the writer a whole range of ready made sounds that he can use in his programs with a single USR command. The first part offers the options of hearing one or all the sounds already defined. As there are 97 sounds this means there is a whole variety to choose from. There are whistles, shots, burps, helicopters, machine guns and throaty coughs all available and ready to be put into your program. All that is needed to set up the machine code is that you build up the selection of the sounds you need and then select the save option.

This saves both the sound data, for the sounds you selected, and the code to replay the sound. As you save the sound you can write down the call addresses of the particular sounds then you insert these at the correct position in your program.

It would have been nice to be able to relocate the code, but it works very well! **D.C.**

instructions	75%
ease of use	90%
graphics	N/A
value for money	85%

★ ★ ★ ★

PCW Games Collection BBC/Electron £4.95

Century, 12 Greek St, London
W1V 5LE

If I was allowed to judge the Computer Users Stocking Filler of the year award I would give it to this package of programs. I cannot get over the value for money aspect. 20 games for under £5. That's what I call value. The real purpose of the collection is to stop you getting callouses on your fingers, for this is the cassette of the book with the same name.

The collection is made up of games previously published by PCW in their program section and there is a fair variety to choose from.

There are strategy games like Black hole and action games like Lander. Some are old standards but several are new and all worth a look.

The book contains a run down of the programming techniques used and this would be useful if you wanted to learn from the games.

There are several differences between the two collections, Electron and BBC but for the most part they are the same. All are written in BASIC and offer the opportunity for you to modify them to your personal desire. An outstanding collection at just 25p a game. **D.C.**

instructions	85%
playability	90%
graphics	90%
value for money	100%

★ ★ ★ ★ ★

Bingo 48K Spectrum £5.95

Tynesoft, Addison Ind Est,
Blaydon-on-Tyne, Tyne & Wear,
NE21 4ZE

I suppose that I should have expected something like this sooner or later, with Britain gripped in Bingo mania at the moment. Here is the chance to win a prize using your Spectrum and a great deal of luck or time.

The game is an automatic Bingo machine with four cards displayed and one not displayed played by the Spectrum. As usual any line in any direction filled allows you to shout 'Bingo' and claim your prize. As there is a winner in every game, getting a real prize isn't that simple.

There are four numbers at the bottom of the screen to be matched by the winner of your home game before you can apply for the real thing. Then you record a piece of data and send the tape to the publisher who sends another tape and so on.

The game is visually fine with each call shown effectively and, if you have the Currah Speech unit, they are called out loud and clear.

I can't wait to see if micro users are just as hooked on Bingo as the rest of the world! **D.C.**

instructions	85%
playability	80%
graphics	90%
value for money	80%

★ ★ ★ ★

Erbert Electron £4.95

Microbyte, 18 Hillsgrove Rd
Newquay, Cornwall TR7 2QZ

No prizes for guessing what type of a game this is. You jump around the pyramid with gay abandon in this.

Copying an old arcade game at this time is rather risky unless you include extra features that really pep it up. This version does have a number of interesting and new features but they don't quite make it. Chasing you on the maze there is a gorilla which looks excellent graphically but moves rather too fast for me. This is a problem with a number of the other characters too: the ball looks transparent, it moves so fast down the grid.

You can collect heli-hats and bananas in this pyramid. The hats act as transporters around the grid and the bananas double your points. The usual balls and spinning discs are there along with a black hole that sucks you right off the board if you touch it.

As I said the extra features are there and the graphic shapes are good but the movement routines are strange and made me blink a great deal. **D.C.**

instructions	75%
playability	90%
graphics	80%
value for money	90%

★ ★ ★

Rolloball Amstrad CPC464 £6.95

Timeslip, Main St, Stoneyburn
W Lothian, EH47 8AP

I have to admit that this is a very original game and one that I have never seen before. The aim is to keep the ball rolling around the complex track displayed on screen. This consists of roads which criss cross and intersect with the others at junctions. You have a panel which you slide around the board changing the nature of these junctions as you do so.

If you are careful and can follow the road along its path you can keep the ball rolling until the Wraparound effect comes into play.

This means that the ball will go off one edge and then return on the opposite edge and makes the game a little easier.

The instructions, on screen only, are inadequate and only confused me. You have to play a number of moves before you get the idea at all.

There is a good screen appearance but the game lacks the quality that you would expect from this capable machine. More colour and sound could have been given and bonus screens could have been used too.

D.C.

instructions	50%
playability	80%
graphics	55%
value for money	65%

★ ★ ★

Don't step on a mine!

Watch where you tread — there's hidden mines about. Use your skill and quick reactions in this game by Barry Hayman

This program runs on the ZX81, and should also run on the Spectrum. Although it is written in BASIC, it is quite fast.

You must dodge the mines on screen. You can only move a restricted number of times and you can select how many mines to avoid.

The more mines there are, and the more moves you make, the greater the points you win.

A set page is available, which is similar but harder.

Full instructions are included in the program.

How it works

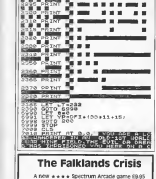
- **1-5** set up variables
- **10-80** instruction routine, how many mines and steps
- **90-205** set up main routine for game
- **210-310** set up INKEY$, succeed or fail
- **312-320** success routine
- **1000 1055** crash routine
- **1000-1120** scores, new game routine
- **2000-6990** set page for experts
- **7000-7100** instructions

Variables

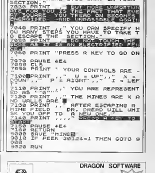
NB	number of mines
LT	number of steps per screen
S	number of steps moved
D	your direction
YP	your position corresponding to position on screen
OFI	display file

```
   1 REM
********************************
** MINES  BARRY.H-MILL,9/3/83 **
********************************
   2 SLOW
   3 LET O=0
   4 LET S=0
   5 LET DFI=(PEEK 16396+256+PEE
  16397)+1
  10 PRINT AT 10,5,"WANT INSTRUC
TIONS ?"
  20 INPUT A$
  30 IF LEN A$ THEN IF A$(1)="Y"
 THEN GOSUB 7000
  40 CLS
  50 PRINT AT 10,5,"NUMBER OF MI
NES ?"
  60 INPUT NB
  70 CLS
  80 PRINT AT 10,5,"HOW MANY STE
PS ?"
  90 INPUT LT
  99 LET S=0
 100 CLS
 101 LET YP=DFI+(33*11+15)
 110 FAST
 120 FOR Q=1 TO NB
 130 PRINT AT RND*20,RND*31,"X"
 140 NEXT Q
 150 PRINT AT 0,0,"█████████████
████████████████████"
```

```
 160 FOR A=1 TO 20
 170 PRINT "█",TAB 31,"█"
 180 NEXT A
 190 PRINT "█████████████████████
███████████"
 200 SLOW
 205 POKE YP,28
 210 IF INKEY$="" THEN GOTO 210
 220 LET A$=INKEY$
 230 LET D=(A$="P")-(A$="I")+33*
(A$="X")-33*(A$="W")
 240 FOR Q=1 TO LT
 250 LET YP=YP+D
 251 LET X=PEEK YP
 252 POKE YP,28
 260 IF X THEN GOTO 1000
 275 LET S=S+1
 280 LET A$=INKEY$
 290 LET D=(A$="P")-(A$="I")+33*
(A$="X")-33*(A$="W")+D*(A$="")
 310 NEXT Q
 312 PRINT AT 11,4,"█████████████
█████"
 313 PRINT AT 12,4,"  W E L L   D
O N E"
 314 PRINT AT 13,4,"█████████████
█████"
 315 FOR Q=1 TO 50
 316 NEXT Q
 320 GOTO 100
1000 POKE YP,23
1001 FOR Q=1 TO 20
1010 POKE YP,PEEK YP-128
1020 NEXT Q
1030 FOR Q=1 TO 5
1040 NEXT Q
1050 CLS
1055 FAST
1060 PRINT "YOU WENT ",S," STEPS
"
1061 PRINT "ON A SETTING OF ",NB
," MINES"
1062 PRINT "AND ",LT," STEPS PER
 SCREEN."
1063 PRINT ,,"SCORE   ",NB," + "
,LT," * ",S
1064 PRINT
1065 PRINT "EQUALS ",(NB+LT)*S
1070 PRINT
1075 SLOW
1080 PRINT "PRESS""S""FOR THE SA
ME SETTING    PRESS""D""FOR A DI
FFERENT SETTING"
1085 PRINT "PRESS""F"" FOR SET PA
GE.
    "
1090 LET A$=INKEY$
1100 IF A$="S" THEN GOTO 99
1110 IF A$="D" THEN GOTO 40
1115 IF A$="F" THEN GOTO 2000
1120 GOTO 1090
2000 CLS
2200 PRINT "█████████████████████
███████████"
2210 PRINT "██████████████
  █   ████"
2220 PRINT "█     ███████ ████
████ █ █ ████"
2230 PRINT "█ ███ █         █
███ █ █ ████"
2240 PRINT "█ ███ █ █████████ █
██ █ █    █"
2250 PRINT "█ ███ █ █       █ █
  █ █ ████ █"
2260 PRINT "█ ███ █ █ █████ █ █
 █ █ █    █ █"
```



```
2270 PRINT
2280 PRINT
2290 PRINT
2295 PRINT
2300 PRINT
2310 PRINT
2315 PRINT
2320 PRINT
2330 PRINT
2340 PRINT
2350 PRINT
2360 PRINT
2365 PRINT
2370 PRINT
2380 PRINT
2385 LET LT=292
2390 GOTO 6990
6990 LET 0=0
6991 LET YP=DFI+(33*11+15)
6992 GOTO 200
6999 STOP
7000 CLS
7010 PRINT AT 0,0;"YOU ARE A LO
ST WANDERER IN AN OLD-1ST WORLD
 WAR MINE FIELD.THE EVIL DR DREA
D HAS IMPRISONED YOU HERE ON A C
```



```
HARGE OF SPYING"
7020 PRINT ,," FORTUNATELY FOR Y
OU HE DOES   HAVE SOME MERCY AN
D SO YOU ARE  ALLOWED TO CHOOSE
HOW MANY MINE SYOU WANT IN YOUR
SECTION."
7030 PRINT ,," BUT MORE UNFORTUN
ATE FOR YOU IS THE FACT THAT EVE
RY SQUARE  YOU TREAD ON BECOMES
ENERGISED  AND UNPASSABLE AGAIN
."
7040 PRINT ,," YOU CAN SPECIFY H
OW MANY STEPS YOU HAVE TO TAKE T
O ESCAPE THE  SECTION."
7050 PRINT ,," DO NOT TOUCH THE
EDGE AS IT IS AN ELECTRIFIED FEN
CE."
7060 PRINT "PRESS A KEY TO GO ON
."
7070 PAUSE 4E4
7080 CLS
7090 PRINT " YOUR CONTROLS ARE -
"
7100 PRINT ,,"  W = UP",,"  X =
DOWN",,"  P = RIGHT",,"  I = LEF
T"
7110 PRINT ,," YOU ARE REPRESENT
ED AS ""0"""
7120 PRINT ,," THE MINES ARE X A
ND WALLS ARE █"
7130 PRINT ,," AFTER ESCAPING A
MINE FIELD   DR. DREAD WILL WHI
SK YOU OFF TO  A NEW ONE."
7140 PRINT ,,,," PRESS A KEY TO
START"
7150 PAUSE 4E4
7160 RETURN
9000 SAVE "MINES"
9010 IF PEEK 30124=1 THEN GOTO 9
000
9020 RUN
```

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Ever popular arcade

More action and excitement to keep your reactions in trim

Phase 4 CBM 64 £6.95

Channel 8, 51 Fishergate, Preston, Lancs PR1 8BH

Watch out aliens, here we go again. The scenario is irritatingly familiar — you control a space ship and must kill a predetermined number of nasties per screen, the actual number increasing with higher levels.

The flavour of the screens varies nicely. Screens two and three are probably the easiest and use vertical and horizontal scrolling. Screens one and four are positively hairy. Whilst the view is static, you are attacked by aliens using a variety of tactics — some bomb, some shoot and some simply home in.

You have the options of smart bombs, guided missiles and shields. Once you have cleared screen four it's back to the beginning with double the nasties.

The game is graphically good with smooth scrolling, neat design and nice twinkling stars. The sound became rather irritating being similar to a drain gurgling. Although the game has a certain appeal, I became rapidly bored. By all means, give this game the once over but play it before deciding. **A.W.**

instructions	65%
ease of use	65%
graphics	75%
value for money	70%

★ ★ ★

Guzzler CBM 64 £7

Interceptor, Lindon Hse, The Green, Tadley, Hants

You are a mouse in a maze with food cells in it. To enter a food cell you must first collect a key to gain access and then gobble gobble gobble. After eating all the food in one section you get fat and can't pass through some of the narrower gaps. To shrink to normal size you should wait on the edges of the maze for Deflator Dennis to come and deflate you.

After emptying all four food sections the bonus letter will move around the screen — catching this will give you extra points. If you complete a full word you get even more points.

To defend yourself from the Trobbies there are a limited number of bombs for your disposal. Extra bombs are gained after every three screens are completed.

The graphics are average. To play the game you need to continually hold the joystick in the required direction. I would have preferred it if you only needed to do this to change direction so that faster reactions would be possible. **K.I.**

instructions	45%
playability	65%
graphics	65%
value for money	65%

★ ★ ★

Drelbs CBM 64 £9.95

US Gold, Unit 10, Parkway Ind Centre, Birmingham B7 4LY

And now for something completely bizarre. The Drelbs have been imprisoned by the Trollaboars. You, a non-captive Drelb, endeavour to rescue as many of your kin as possible.

The game comprises of two screens. The first is a grid of doors which can be flipped through 90 degrees to form enclosed boxes. You must zip about completing as many boxes as possible. As a box is completed, it pulses with light.

Trolloboars and things called Screw Tanks charge about trying to get you. You can disable the Trolloboar by trapping it in a box or picking up heart-shaped tokens. When all boxes are formed, they fill up with Grogolytes and Drelbish windows. Jump through the Drelbish window and start screen two.

Here you avoid a Grogolyte and release the Drelbs, then back to the first screen with greater nastiness.

It's all rather weird. It's also an excellent game. The graphics are very high standard with slick effects. There's a lot going on and it's a stiff challenge. This is a game that must be seen to be believed. **A.W.**

instructions	85%
ease of use	85%
graphics	90%
value for money	90%

★ ★ ★ ★ ★

Cliff Hanger CBM 64 £7.95

New Generation, Freepost, Bath BA2 4TD

This game is a prime example of one of those ideas which is so obvious that you can't understand why it hasn't been done before. In a nutshell this gem is one long cartoon. As Cliff Hanger the cowboy, you try to stop the bandito from shooting you. In true cartoon fashion you have bombs, rocks, anvils, see-saws and boomerangs with which to sort him out.

The game is split into fifty scenarios. Each offers a different method of fixing the opposition. You might have to jump on a see-saw which drops a rock on the bandito. You must figure out each method and then perform the deed. Each level consists of a number of scenarios, each of which must be solved before progressing. Score depends on solving the scenes and there are bonuses for getting it right first time. At higher levels things get nastier and you've got to succeed first time to survive.

The graphics are to a high cartoon standard and along with superb animation give hilarious results. If you like Tom and Jerry you'll love this. **A.W.**

instructions	70%
ease of use	85%
graphics	90%
value for money	90%

★ ★ ★ ★ ★

Ad Infinitum CBM 64 £7.50

Mr Chip, 1 Neville Place, Llandudno, LL30 3BL

Just when you thought that you had seen your last space invader game some smart alec comes up with a new and amusing variant. You control a space ship and must attempt to repulse the waves of alien invaders. Your only protection is a laser and your manoeuvrability.

You can move from side to side and part of the way up. Your laser has continuous fire but excessive use will cause overheating and possible destruction.

The novel part is that you can have infinite lives. This is rather useful since there are 256 waves of nasties. You get your lives in groups of six and you have the option to continue when the last of the group is lost. If you continue, you resume with the wave of nasties you were fighting last.

The aliens are colourful and each wave acts differently and has a different design. Overall the game performs nicely.

This sort of game is not really my cup of tea but on balance it is a good game of its' type and is worth a close look. **A.W.**

instructions	80%
ease of use	80%
graphics	75%
value for money	70%

★ ★ ★ ★

Quests for the unknown

More adventures to keep the addict happy. Out reviewers give their expert opinion

Firequest
CBM 64 £9.95

The Edge 31 Maiden La, Covent Gdn, London WC2

Firequest is a seven part action adventure game with most emphasis on arcade aspects The seven screens relate to the character Ugh's search for fire

Each screen requires you to guide Ugh around to collect or reach items There are problems On one screen you have to avoid man-eating spiders and swing across creepers On another, during a storm, you have to avoid lightning

The seven screens are deceptively simple, but the game is not easy I never got past the first screen. However there is a demo mode which shows the action to come

The game thoughtfully provides you with a number of options You can turn the music off using the F3 key The will please some More importantly you can choose joystick or keyboard I found that in some instances the keyboard gave control

Firequest uses a fast loading system and is packaged in a large library case Although not outstanding there are many worse games on the market, it is slightly overpriced **L C**

instructions	50%
playability	80%
graphics	70%
value for money	60%

★ ★ ★

Eureka
CBM 64 £14.95

Domark 228 Munster Rd, London SW6

Fancy winning £25 000 guv? Well according to the spiel with this game, the first person solving it will gain a handy little back hander

Basically you get five adventures each in a different time period Your task is to locate the five missing pieces of a talisman Each adventure is preceded by an arcade game By scoring more than 25 000 points in any game, you increase your vigour points in the adventure All of the arcade sections were the same type with minor changes and involved a maze of paths and picking up objects I found them rather tedious and didn't spend much time on them

The adventure sections are of a good standard They are in real time and require rapid response The grapics are good and seem to use multicolour sprites to build up a picture Surprisingly, sound is also used to good effect Both are better than most adventures The games are a little rudimentary in structure but still pretty challenging and good fun Overall, fun but a little weak **A.W**

instructions	50%
ease of use	75%
graphics	50%
value for money	65%

★ ★ ★

Orpheus in the Underworld
CBM 64 £6.95

Sterling, Garfield Hse, 86/88 Edgeware Rd London W2 2YW

It seems that the favourite plots for graphical adventures seem to involve mythology This time it's the turn of Orpheus, that well known Greek His task is to search the underworld for treasures — Sterling Software emblems

His task is made difficult with different hazards including fireballs birds, rocks, sharp stakes and open holes in the ground (you use ropes to swing over some) You have a fixed number of lives and when one is lost, you restart at the point you reached

The game uses fixed screens without scrolling When you leave one, the next is instantaneously displayed The quality of the graphics is good with tasteful design The design is in ancient Egyptian style and rather incongruous considering the hero is Greek! Offenbach's overture to Orpheus in the Underworld (the Can Can theme) is used on the sound track This combined with some fair animation gives the game a nice flavour

On the whole a game of good quality which, however, seems to lack that certain special something and is perhaps a little limited in variety **A W**

instructions	70%
ease of use	70%
graphics	80%
value for money	70%

★ ★ ★ ★

Sorcery
CBM 64 £7.95

Virgin, 61/63 Portobello Rd, London W11

This is a graphics adventure without the restrictions of its genre and with the flavour of a proper adventure In most graphics adventures you must collect items and avoid nasties normally by a specific route In this game, you need to collect items which must be used for specific tasks Your route is entirely up to you and colisions with the nasties sap your strength

You control a sorcerer and must attempt to place an object on the altar at Stonehenge You leave each screen via doors, some open, others closed The rooms are occupied by nasties killed by violence or magic The objects you find include weapons, spells, a suitcase and a means of recovering strength

The value of the objects must be discovered by trial and error The real problem is the time limit This means that you must find the optimum route and move like lightning

Graphically the game is very tasty with smooth animation and nice design

So far I've done about a third but next time **A W**

instructions	85%
ease of use	85%
graphics	85%
value for money	85%

★ ★ ★ ★

Chiller
CBM 64 £1.99

Mastertronic, Park Lorne, 11 Park Rd, London NW8 7JL

Mastertronic have found rather a nice one this time Chiller is a graphical adventure with a ghoulish flavour Your aim is to rescue a damsel in distress

To do this you must find your way through five screens of nasties, collecting blue crosses on the way Screen one shows a forest inhabited by spiders zombies ghouls, ghosts and poison mushrooms You climb about the trees avoiding the nasties to collect the crosses Contact with any of the nasties leads to a reduction in energy zero energy means end of game You recover energy by eating certain mushrooms

The other screens involve a cinema a ghetto, and graveyard and a haunted house You only have one life to last the game so care is required Once you have rescued the maiden, you find your way back through the five screens and collect more crosses In all a tough job

The design is better than average with good graphics and quality music At a normal price this game would be good value At £1 99 it's simply amazing Buy it **A W**

instructions	75%
ease of use	80%
graphics	80%
value for money	100%

★ ★ ★ ★ ★

Are you the real thing — or a fake?

In this two-player game, which one of you is the real Robin Hood? Prove your credentials in is archery dual by Andrew Bird, HCW regular contributor

Prove you are Robin Hood and not an impostor in this game for two players. What you have to do is to climb the oak tree faster than your opponent. Fire your arrow, hit your rival and climb up a branch.

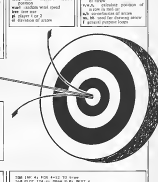
Be warned — wind speed will affect your progress, as will the rate of growth of the oak tree. These are your control keys: **7** up, **6** down, **0** for more strength, **9** for less, release arrow with **A** and press any key to continue

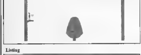
How it works

1-40	initialise
100-170	draw position of Robin on branch
350-390	increase tree size
510-600	loop for setting elevation and strength
1000-2020	arrow flight
5000 5040	Robin Hood tune
7000 7560	check for hit
8000 8060	end of game routine
8500 9560	instructions
9000-9040	graphics
9500-9630	machine code sound effects

Variables

h(1), h(2)	Robin's vertical position
wind	random wind speed
tree	tree size
pl	player 1 or 2
el	elevation of arrow
st	strength of shot
pos	horizontal starting position of arrow
v,w,x,	calculate position of arrow in mid-air
a,b	co-ordinates of arrow
aa, bb	used for drawing arrow
f	general purpose loops





Listing

```
   1 The Real Robin Hood          By   A G Bird  198
4
   2 GO SUB 8500: GO SUB 9000
   3 GO SUB 5000: PAUSE 0
   4 RANDOMIZE
   5 LET wind=INT (RND*7)-2
   8 DIM h(2): LET h(1)=0: LET h(2)=0: LET pl=1
  10 CLS : PRINT AT 5,4;"The wind speed for this";AT 8,
7;"game is ";wind;" knots "
  15 PAUSE 200: BEEP .01,60: BORDER 4: CLS : BORDER 5
  20 FOR f=2 TO 21: PRINT AT f,0; INK 2;" ";AT f,31;" "
: NEXT f
  30 PRINT AT 20,15; INK 2;"  ";AT 21,15;"  "
  40 LET tree=INT (RND*30)+20
  99 REM Main game loop
 100 INK 1: PRINT AT 19-(h(1))/8,1;"  ";AT 20-(h(1))/
8,1;"  ";AT 21-(h(1))/8,1;"  "
 110 PRINT AT 19-(h(2))/8,29;"  ";AT 20-(h(2))/8,29;"
  ";AT 21-(h(2))/8,29;"  "
 120 IF h(1)>=16 THEN  PRINT AT 22-(h(1))/8,1; INK 2;"
  "
 130 IF h(2)>=16 THEN  PRINT AT 22-(h(2))/8,29; INK 2;"
  "
 140 IF h(1)>=16 THEN  PRINT AT 23-(h(1))/8,1;"  "
 150 IF h(2)>=16 THEN  PRINT AT 23-(h(2))/8,29;"  "
 160 IF h(1)>=24 THEN  PRINT AT 24-(h(1))/8,1;"  "
 170 IF h(2)>=24 THEN  PRINT AT 24-(h(2))/8,29;"  "
 299 REM  Tree growing
 350 INK 4: FOR f=12 TO tree
 360 PLOT 124,f: DRAW 8,0: NEXT f
 370 FOR f=0 TO tree/4
 380 PRINT AT 4,1; INK 2;"   ";AT 4,28;"   "
 390 PLOT 124-f,8+f*f/20: DRAW 0,tree-8-f*f/5: PLOT 132
+f,8+f*f/20: DRAW 0,tree-8-f*f/5: NEXT f
 499 REM  Increase variables
 510 LET el=10: LET st=210: LET bb=16
 520 LET el=el+(INKEY$="7" AND el<35)-(INKEY$="6" AND e
l>10)
 530 LET st=st+5*(INKEY$="0" AND st<290)-5*(INKEY$="9"
AND st>210)
 550 PRINT AT 0,0; PAPER 5-pl*2; INK 7;"Player ";pl;" E
levation ";el;" Strength ";INT (st/10)-20
 560 IF INKEY$="a" THEN  LET el=el+wind: GO TO 1000
 600 GO TO 520
 999 REM  Arrow flight
1000 INK 1: IF pl=1 THEN  LET pos=20: LET aa=25: PRINT
AT 19-(h(1))/8,2;" ";AT 20-(h(1))/8,2;" ": GO TO 1020
1010 IF pl=2 THEN  LET pos=228: LET el=180-el: LET aa=2
30: PRINT AT 19-(h(2))/8,29;" ";AT 20-(h(2))/8,29;" "
1020 LET v=st*COS (PI*el/180)
1030 LET w=st*SIN (PI*el/180)
1040 FOR n=0 TO w STEP .2
1050 LET x=(n*w-16*n*n)/10
1060 LET a=pos+((v*n)/5)
1070 LET b=5*x+20
```

```
1000 IF a<24 OR a>232 THEN  GO TO 7000
1100 IF a+h(pl)<0 THEN  GO TO 2000
1110 IF b+h(pl)>165 THEN  PAUSE 4: BEEP .002,n/10+20: G
O TO 1190
1140 IF POINT (a+5,b+h(pl)) OR POINT (a-5,b+h(pl)) OR P
OINT (a,(b+h(pl))-5) THEN  GO TO 1500
1150 PLOT a,b+h(pl)
1160 DRAW aa-a,bb-b
1170 BEEP .002,n/10+20
1180 PLOT  OVER 1;a,b+h(pl): DRAW  OVER 1;aa-a,bb-b
1190 LET aa=a: LET bb=b
1200 NEXT n
1500 IF a<24 OR a>232 THEN  GO TO 7000
2000 LET tree=tree+2: IF tree>72 THEN  LET tree=72
2010 IF pl=1 THEN  LET pl=2: GO TO 30
2020 IF pl=2 THEN  LET pl=1: GO TO 30
4999 REM  Robin Hood Tune
5000 FOR f=1 TO 300: NEXT f
5010 FOR f=1 TO 2: BEEP .1,12: PAUSE 5: BEP .1,12: PAUS
E 5: BEEP .2,12: PAUSE 10: NEXT f
5020 BEEP .1,16: PAUSE 5: BEEP .1,16: PAUSE 5: BEEP .2,
16: PAUSE 7
5030 BEEP .08,14: PAUSE 2: BEEP .3,12
5040 RETURN
6999 REM  Check Hit
7000 IF pl=2 THEN  GO TO 7030
7010 IF b+h(1)>h(2) AND b+h(1)<(h(2)+24) THEN  GO TO 75
00
7020 GO TO 2000
7030 IF b+h(2)>h(1) AND b+h(2)<(h(1)+24) THEN  GO TO 75
00
7040 GO TO 2000
7500 LET h(pl)=h(pl)+16
7530 FOR f=1 TO 20
7540 POKE 35001,f: POKE 35002,30-f: RANDOMIZE USR 35000
: NEXT f
7550 IF h(pl)>112 THEN  GO TO 8000
7560 GO TO 2000
7999 REM  End of Game
8000 PRINT AT 0,0;"                                "
8010 IF pl=2 THEN  GO TO 8030
8020 FOR f=5 TO 8: PRINT AT f,1;"  ": NEXT f: PRINT AT
1,2; INK 1;"  ";AT 2,2;"  ";AT 3,2;"  ": GO TO 804
0
8030 FOR f=5 TO 8: PRINT AT f,27;"  ": NEXT f: PRINT AT
 1,28; INK 1;"  ";AT 2,28;"  ";AT 3,28;"  "
8040 PRINT AT 2,4;"The real  ROBIN HOOD";AT 4,4;"is ..
.. .Player ";: FLASH 1;pl
8050 GO SUB 5000
8060 FOR f=1 TO 500: NEXT f: PAUSE 0: GO TO 1
8499 REM  Instructions
8500 BORDER 5: PAPER 5: CLS
8510 PRINT AT 0,5; PAPER 4; INK 7;" THE REAL ROBIN HOOD
 ";AT 2,5;" By  A.G.Bird. 1984  "
8520 INK 0: PRINT    "This game for 2 players is basso
n an archery contest to see whois the real Robin Hood."
 "Each hit moves Robin up a branchand the first one to
the top is the winner."
8530 PRINT AT 13,10; PAPER 3; INK 7;" CONTROLS ";AT 15,
14;"7";AT 15,21;"6";AT 17,14;"0";AT 17,21;"9";AT 19,26;
"A"
8540 PRINT AT 15,4;"Elevation";AT 15,10;"up";AT 15,23;"
down";AT 17,4;"Strengh";AT 17,16;"more";AT 17,23;"less"
;AT 19,4;"Release  arrow  with"
8550 PRINT  PAPER 4; INK 7, "     Press any key to conti
nue     "
8560 RETURN
8999 REM  Graphics
9000 RESTORE 9010: FOR g=65368 TO 65495: READ r: POKE g
,r: NEXT g
9010 DATA 48,24,28,30,29,14,14,4,0,0,0,0,48,0,4,2,31,46
,76,78,61,14,14,14,251,6,26,226,4,4,8,0
9020 DATA 10,10,10,10,10,10,10,27,0,0,0,0,12,16,32,64,1
2,24,56,170,184,112,112,32,223,94,88,76,32,32,16,0
9030 DATA 240,116,114,114,100,112,112,112,00,00,00,00,0
0,00,00,216,71,255,255,255,254,240,192,128,240,255,255,
255,127,15,7,1
9040 DATA 0,0,0,0,4,4,2,2,254,2,2,2,2,4,4,0,0,0,0,16,32
,72,64,64,127,64,64,64,64,32,32,0
9499 REM  M/code sound
9500 RESTORE 9520
9510 FOR f= 35000 TO 350[illegible]: READ n: POKE f,n: NEXT f
9520 DATA 1,1,30,[illegible],0,1,17,2,0,229,213,197,205,181,3,19
3,209,225,125,14[illegible],111,16,242,201
9530 RETURN
9999 SAVE "Robin Hood" LINE 1
```

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War is declared

Here are some exciting war games for you to try. Will you save your country from the enemy?

Thrusta CBM 64 £7.95

Software Projects, Bear Brand Complex, Allerton Rd Woolton, Liverpool

I never cease to marvel at the variants which software writers come up with Here is a game in which you have two types of nasty to kill The lesser types can be killed with a salvo from your cosmic blaster To kill the big boys, you must drop a rock on them! The action takes place in a series of platforms and walls You fly a little rocket and your raison d'etre is to destroy nasties or die The big meanies hatch from eggs at the base of the screen and swarm upwards using a variety of tactics You must splat each one to clear the screen The junior aliens move about making life tedious and are replaced when killed Your trusty rock starts at the top level and you shunt it about with a shove from your ship

Generally the game design is of a good standard with clear colourful sprites and good animation Raster interrupts are used to give more than eight sprites, but this does give an irrating flicker

A fun game which became rather boring after a few screens

A.W.

instructions	65%
ease of use	65%
graphics	65%
value for money	70%

★ ★ ★

Nuclear Games CBM 64 £6.50

Severn, 15 High St, Lydney, Glas GL15 5DP

That is a graphics adventure game A super computer has taken control of the Nuclear Defence System and is about to start a war The only person who realises is a forgetful scientist He has made up a ditty that contains clues on stopping the computer You must break into the establishment, solve the clues, and stop the computer

This is nicely thought out and presented The game uses a fast loading system displaying screen colours while loading to assure you that all is well There is an introductory sequence that sets the scene and atmosphere which contains good graphics and music

The adventure relies on entering a two word, verb and noun instruction The action is depicted on the graphics screen which occupies the top half of the screen I liked the fact that the graphics often responded to your actions Tying a rope to a tree resulted in a rope appearing When you need a break you can save your position to tape and continue another time This should provide hours of adventuring

L C

instructions	70%
playability	70%
graphics	70%
value for money	70%

★ ★ ★ ★

Fort Apocalypse CBM 64 £9.95

US Gold, Unit 24, Tipton Trading Est, Brookfield Rd, Tipton, W Midlands

This is an interesting combination of old themes which results in an enjoyable game You control a helicopter on a mission to rescue captives from the catacombs of Fort Apocalypse This underground labyrinth is protected by flying mines, robo-choppers, laser chambers and hyper chambers If you are travelling left or right you fire in the direction of travel If you are stationary and facing out of the screen, you can bomb

To travel about the labyrinth you must bomb or shoot through barriers To descend to a lower level you must use speed and cunning to avoid the defenses There is also the problem of fuel This is a game of skill, speed and strategy and not of sledge hammer tactics

You get a nicely drawn scrolling side view of the labyrinth with a small radar view at the top of the screen The animation is nice with realistic movement, very similar to Chopper Lifter

This is a gripping game which had me cursing and having another go Try it and see if you agree

A W

instructions	90%
ease of use	90%
graphics	85%
value for money	85%

★ ★ ★ ★ ★

Superpower 48K Spectrum £5.95

CCS 14 Langton Way, London SE3 7TL

If you have ever fancied the life of a spy, then this program is likely to disappoint you Not because it isn't a good program, but the gentlymanly approach and attitude has left and now the CIA and KGB have moved onto slightly more dastardly types of activity

You play the intelligence executive of a major power and have the task of protecting and promoting the power's interests overseas Your playground is part of the third world, an accurate scenario

Play consists of all players having to make two types of move per round The first, collecting information either about a nation or a comparison of industry and structure The second part is the chance to affect the balance of power and has you indulging in bribery/investment, funding the opposition and overthrowing governments among the more peaceful normal activities

The game is a good war game with maps to show achievement but little else in graphics It is a long game of skill and strategy and as such will appeal to wargamers in particular

D.C.

instructions	80%
playability	80%
graphics	75%
value for money	80%

★ ★ ★ ★

Falklands Crisis 48K Spectrum £9.95

Llainlan Pontyberem, Llanelli Dyfed SA15 5HP

Advertised as a "good combination of strategy and arcade" I have to report that I agree with this wholeheartedly I feel that it will appeal to the strategy game players more than arcade freaks however

Based on the Falklands incident, you become the pilot of a Harrier jump jet patrolling the Falklands One novel feature is the way your current map location is displayed on a small map in the top corner This acts as the radar indicator too, with enemy planes in a sector causing the map to flash, a rather neat touch

Sound is basic but adequate and graphics reasonable for this type of game I have yet to develop a technique for bombing ships but shooting down planes is easier You seem to have an unlimited amount of fuel, or perhaps I always die before it runs out

One other unusual feature is the wraparound of screens on the map if you go off one side you reappear on the other, I wish this happened in reality on occasions

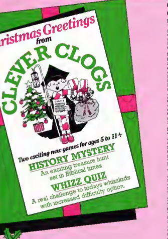
D C

instructions	65%
playability	90%
graphics	85%
value for money	80%

★ ★ ★ ★

Christmas Twin Pack

Great Value for £9.99 r.s.p.


Christmas Greetings
from
CLEVER CLOGS
Two exciting new games for ages 5 to 11+
HISTORY MYSTERY
An exciting treasure hunt set in Biblical times
WHIZZ QUIZ
A real challenge to todays whizzkids with increased difficulty option.

CLEVER CLOGS
early learning games

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Argus Press Software Group

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Terry Blood
Microdeal

Just in time for Christmas, two best sellers from the Clever Clogs range, WHIZZ QUIZ and HISTORY MYSTERY for only £9.99 r s p

Included with HISTORY MYSTERY is a leaflet showing shortened versions of the Bible Stories and their Clues that can be seen in the game. Written by Rev. Nigel Hardcastle and approved by the Scripture Union it's a fun silicon chip Sunday school. Whizz Quiz is a great family game, just right for the Christmas season.

So make it a merrier Christmas for someone (or yourself!) with this colourful value-for-money Twin Pack containing these challenging and exciting new games from Clever Clogs — WHIZZ QUIZ and HISTORY MYSTERY

Available for Spectrum only

Other programs in the Clever Clogs series:

Party Time for age 3+
With initial help from Mum and Dad tiny tots will learn to play three party games. They can blow out the candles on the cake, sing along with nursery rhymes, even draw on the screen. Letters and numbers are taught the fun way. Watch your whizzkids develop new skills and learn how to use a computer.
6 different games and increased 'difficulty' option. (S) (B) (C) (M) (A).

Shipshapes for age 3+
find and understand SHAPES with 5 great games.
5 games with machine code animation and lively graphics to encourage shape recognition. Shape Sorter and Dodgems aid co-ordination. Pattern Maker and Shape Maker will become great favourites. With Shipshapes you must fill the ship up from a helicopter by parachute! It sails away gracefully if you get it right. Clever Clogs leads them through the program with songs and jokes and guarantees fun all the way. (S).

Jungle Jumble for age 5+
Can your whizzkids create their own unique zoo? Answer the questions correctly and finish the picture — the possibilities are endless. Guaranteed to make them laugh. Enter the Great Safari Park Chase and get the car past the spelling traps. They will be off to a flying start to their school work and learn how to use a computer.
3 different games and increased 'difficulty' option. (S).

Sam Safety for age 5+
Teach adventurous Sam roadsense and guide him safely home.
A real-time adventure with machine code action. You walk Sam across a town of your design using the cursor keys or a joystick. Pick up the prizes as they appear. Learn all about Pelican crossings, Zebra crossings, traffic lights and road signs. Get to the safety area as many prizes as you can and get your Road Safety Certificate with this new way to learn roadsense.
FREE Sam Safety badges enclosed. (S) (C).

Whizz Quiz for age 7+
A game of skill and chance for 1-4 players that's a real challenge to today's whizzkids. Programmed with 100 general knowledge questions which gives them a flying start to their school work and helps them become skilled in the use of a computer.
With increased 'difficulty' option. (S) (C) (M) (A).

Blockbuster for age 7+
The puzzle with a million billion variations.
Can your whizzkid find the answer?
The puzzle is made up of 12 blocks which must be fitted together to form a rectangle. You can link the blocks by rotating and flipping them in the Workbox. Machine code action makes for lively graphics. Answer the Quiz to find a complete solution to the puzzle. You can reset the 100 questions too. Baffle, flummox and perplex, it will tease all the family. Shape recognition, reflections and solution are taught the fun way. 5 'difficulty' options and a FREE competition. (S).

Star Trucker for age 9+
Answer the questions correctly and become a Space Pilot trading beyond hyperspace to find the Power Crystals. Asteroids, leaking fuel tanks, dust belts, accidents — all have to be mastered. Strategy and clear thinking are vital. Every game is different, it's a real-time adventure with great graphics and the chance to enter a competition to learn the words to the Space Academy theme.
With increased 'difficulty' option. (S) (B) (C).

Supplementary Knowledge Tapes
Jungle Jumble, Whizz Quiz, Blockbuster & Star Trucker all have a unique editing function to change the questions. Parents can do this by following screen prompts or they can buy specially researched knowledge packs of 600 questions in: Science, The Arts and General Knowledge. (S).

History Mystery for ages 5 to 11+
Using high resolution maps of the countries concerned you have to direct Clever Clogs to find the buried treasures. Clues are listed from the bible to encourage its use — eg. find the where Moses as a baby was left on the river bank? Or where the sea 'parted' to allow the Israelites to pass through on their way to the Promised Land?
A fine game in its own right it's widely used in Sunday Schools and is full of song and humour. Whales, camels — even an old lion are just some of the obstacles.
There are five levels of difficulty to keep up the challenge and retain interest at all ages. Free illustrated stories from the Bible. (S).

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BBC	(B)	£8.95	Amstrad	(A)	£7.95
CBM 64	(C)	£8.95			

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ARCADE

1	Daley Thompson Decathlon	Ocean	Spectrum (1)
2	Booty	Firebird	Spectrum (2)
3	Ghostbusters	Activision	Spectrum (-)
4	Manic Miner	S Projects	Spectrum (3)
5	Pyjamarama	Mikro-Gen	Spectrum (4)
6	Jet Set Willy	S Projects	Spectrum (5)
7	Beach Head	U S Gold	Spectrum (9)
8	Monty Mole / Wanted	Gremlin Graphics	Spectrum (7)
9	Combat Lynx	Durell	Spectrum (-)
10	Hunchback	Ocean	Spectrum (8)

NON-ARCADE

1	Underwurlde	Ultimate	Spectrum (3)
2	Knight Lore	Ultimate	Spectrum (2)
3	Elite	Acornsoft	BBC (1)
4	Football Manager	Addictive	Spectrum (5)
5	American Football	Mind Games	Spectrum (4)
6	Kokotoni Wilf	Elite	Spectrum (8)
7	Sherlock	Melbourne Hse	Spectrum ( )
8	Tir Na Nog	Gargoyle	Spectrum (7)
9	Twin Kingdom Valley	Bug-Byte	Spectrum (9)
10	Avalon	Hewson	Spectrum (10)

Compiled with the assistance of Britain's leading software distributors, including: Pinnacle, SDL, PCE, Websters, PCS and Software Centre.

SPECTRUM

1 Booty	Firebird ( )
2 Daley Thompson's Decathlon	Ocean (3)
3 Avalon	Hewson ( )
4 Select 1	Computer Recds ( )
5 Matchpoint	Sinclair ( )
6 Tornado Low Level	Vortex (5)
7 World Cup	Artic ( )
8 Jet Set Willy	S Projects (10)
9 Full Throttle	Micromega (6)
10 Beach Head	Centresoft (4)

COMMODORE 64

1 Booty	Firebird ( )
2 Matchpoint	Psion ( )
3 Tornado Low Level	Ocean ( )
4 Spirit of Stones	CBM ( )
5 Jinn Genie	Micromega ( )
6 Ghostbusters	Activision ( )
7 Chiller	Mastertronic (3)
8 D Thompsons Decathlon	Ocean (5)
9 Zaxxon	Centresoft (8)
10 Raid over Moscow	U S Gold (2)

DRAGON 32

1 Manic Miner	S Projects ( )
2 Hunchback	Ocean (1)
3 Cuthbert in Space	Microdeal (7)
4 Dragon Chess	Oasis (3)
5 Chuckie Egg	A & F (5)
6 Mystery of the Java Star	Shards (4)
7 Mr Dig	Microdeal (6)
8 Kriegspiel	Beyond (8)
9 Sprite Magic	Knight Soft (10)
10 Bug Diver	Mastertronic (10)

Compiled by W. H. Smith and Websters. Figures in brackets are last week's positions.

VIC-20

1 Perils of Willy	S Projects (1)
2 Duck Shoot	Mastertronic (2)
3 Punchy	Mr Micro (3)
4 Sub Commander	Creative Sparks (5)
5 Flight 015	Craig Coms (10)
6 Max	Anirog (6)
7 Tower of Evil	Creative Sparks ( )
8 Maze Gold	Visions ( )
9 3D Maze	Mastertronic (4)
10 Tank Commander	Creative Sparks ( )

BBC

1 Sabre Wulf	Ultimate ( )
2 Manic Miner	S Projects ( )
3 Scrabble	Leisure Genius (1)
4 Elite	Acornsoft (2)
5 Bird Strike	Firebird ( )
6 Football Manager	Addictive (3)
7 Swag	Micro Power (4)
8 Acid Drops	Firebird ( )
9 Duck	Firebird ( )
10 Mini Office	Database (5)

AMSTRAD

1 Manic Miner	S Projects (-)
2 Hunchback	Ocean ( )
3 Blagger	Alligata ( )
4 Classic Adventure	CBM ( )
5 Fantasia Diamond	Hewson ( )
6 Roland Ahoy	Amstrad ( )
7 Snooker — Steve Davis	CDS ( )
8 Ghouls	Micropower (2)
9 Forest At Worlds End	Interceptor (5)
10 Return to Eden	Level 9 ( )

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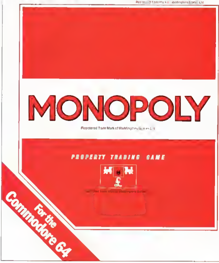
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MSX = M5 = error

A cautionary tale and topical now that MSX has arrived

About a year ago, in Bristol, where I lived at the time, I bought a CGL (Sord) M5 computer, now very much to my regret. However at the time the shop was running a video which, amongst other things said that 'MSX is coming'. The shop told me what MSX was, assuring me that CGL were in on the ground floor. Although there was then only a limited amount of software available for the Sord, with MSX they would be able to match any other system.

It turns out that the M5 does not take MSX software and although I have written to the shop and CGL, I have had no satisfactory replies.

I would like to hear from any other readers, particularly Sord M5 owners, whether they saw this display running or were told similar tales.

K Birtwhistle, Altringham

3-D puzzle

I read with great interest the article in HCW about arrays and have the same sort of opinions about 3-D arrays. But when I read the ideas about 4-D and 5-D (and so on) arrays, I must say that I have slightly different views on the subject and here is my reasoning.

I think that a computer only uses one-dimensional arrays and that the other dimensions have been invented to facilitate us humans. This means that if we have an array DIM A(3,3,3,3) the computer simply reserves 81 locations for our use and whenever we refer to an array the computer uses a formula to calculate proper location. If we mark DIM A(A,B,C,D), this formula would be (a-1)*b*c*d+(b-1)*c*d+(c-1)*d+d. If my reasoning is correct then the reasoning in the article is wrong because this formula does not work in the 4-D arrays.

My second point is that to my mind every subscript in an array tells how many location groups are determined in the rest of the DIM-clause. DIM A(1,2,3,4) means that there is one 2,3,4 and 1*2 3,4s and 1*2*3 4s. So you can calculate how many 'resets' there are by multiplying the subscripts up to the beginning of the 'rest'. Now if we think that DIM A(3,3,3,2) means the same as two 3-D arrays neither of the above reasonings will work.

I think that the cubes system is a very good way to demonstrate the many-D arrays, but I suggest the following addresses for 5-D arrays:

— first number tells which row of cubes

— second number tells which column of cubes, as we now have located the right cube

— third number tells which row in that cube

— fourth number tells which column in that cube

— fifth number tells the depth in that cube

Jukka Pithenen, Tampare, Finland

Rubbish!

I am a Spectrum owner and proud of it. I think John Rogers (HCW 89) is talking a load of *@(+£@)! Maybe if he thought a bit instead of just waffling he might be able to reason that there are more programs for the Spectrum because there are more Spectrums!

On a higher note, I must agree with John Richardson (also HCW 89) about games playing. Who cares about games? I personally like programming but I still don't see why such a fuss should be kicked up.

All this business about pirating is not worth it. People find copying tapes very rewarding!

Tony Austin, London

Continuing story

In the last few weeks I have read with great interest the enlightening and sometimes angry letters concerning software piracy.

Many points of view have been put forward and the picture seems to be that readers of HCW see software piracy in a very domestic light. Friends copying each other's games and passing them on to third parties and so it goes on. Perhaps they would be more sympathetic to software houses if they took note of the points raised in the letter from Jon Dean of Atarisoft (HCW 88).

It must be terribly frustrating for a software company to come across such blatant theft of a game, not even released and being distributed in its name, especially when the quality is so vastly inferior.

It is not only software houses that suffer under such circumstances. It is people like Mike Curtis, who has obviously been ripped off something rotten in this case. That is why it is stupid to support piracy even in a very small way. One day you could find yourself the victim of a similar con trick, several pounds out of pocket and with no way of recouping your loss. That is when you will start condemning pirates but by then of course it will be too late.

So start now and be honest. Taping commercial programs is theft just like robbing the bank of England!

Steve Wallace, Canterbury

Is it dead?

```
1 GRAPHICS 0 DIM
HELP$(anything)
5 Set C,0 4,0,0
SETC 0 2 0 12
10 ? Dear HCW,
20 ?" I am a confused Atari
800XL owner"
30?" and I would like to
know if there is"
40?"any future for the
crummy useless low "
50?"res, lump of cheap
BASIC? "
60?" Please reassure me
that the Atari computer"
70?" is not dead "
80?" is there anything that
the Atari can do?"
90 INPUT HELP$
100? ?HELP$ IN Home
Computing Weekly please
```

Charles Gibbons, London

Good point

What does John Rogers (HCW 89) think he is talking about? I think that Henry O'Donavan's letter in HCW 86 made some very good points and I wish that there were a few more intelligent people like him around.

HCW is a very good magazine and I feel that it does its best to support all kinds of computers, even dead ones like the TI 99/4A! The Spectrum is the most popular computer in this country, you can see that just by looking at any software chart because most of the top selling games are for the Spectrum. It is therefore perfectly logical to run a higher proportion of programs for this micro.

I am not normally given to writing letters to magazines but I felt that I had to reply to John Roger's amazing statements. He is pretty stupid if he thinks that the Spectrum is just a games machine. Even if it is, the only reason the TI 99/4A is not one is because there are no games for it anymore.

I get really fed up of TI owners. They all seem to be a certain type of person who loves to have a real chip on their shoulder. Why don't they shut up and get on with it like the rest of us do instead of mouthing off about their virtues and everybody else's disadvantages.

Barry Stair, Templeton

Soap box speech

Having read this week's HCW (89) I felt I must write to totally agree with John Rodgers of Leeds about the Spectrum.

I quote: "I must admit that I sometimes get fed up with the number of letters, etc in HCW for the TI-99/4A." This excerpt was from Henry O'Donovan's letter (HCW86). Well, I get sick of reading and seeing the letters, articles and adverts for the Spectrum. It seems that the curse of the rubber keys has taken over the whole software companies!

It also seems to be that Sir Clive Sinclair has brought out this new Spectrum+ (which incidentally is a rip-off. I think I read how the key tops fell off when it was turned upside down!) to restoke the fire for the sales of the old Spectrum.

Naturally a Sinclair spokesman denied this: "We have been listening to all the people who have been saying that the Spectrum needs a good keyboard." All Spectrum owners know how true that is!

But, as of now, Clive Sinclair has only reached the tip of the iceberg in keyboards and sound.

Having said all this, I must say that of the games I have seen for the Spectrum, most have been of good quality.

My advice to all people who are thinking of buying a computer is this: you could do better than buying a Spectrum or Spectrum+. A Commodore 64 or Atari 800XL would be a good investment for both games and business.

Another sore point I read in Henry's letter is the view that the letters page should not be turned into the cheating page.

May I just say, that Henry, is none of your business. I'm not going to sit here and read about people who are trying to dictate to me that I should stop writing to ask for help but sit there until I gather dust.

Anyway, people like you will not have to put up with cheats like us, because HCW says it will be starting an adventure column, so all you dedicated adventurers or cheats write in with your problems or advice.

If you don't like it don't read it! That's the answer.

I would like to congratulate HCW on the un-bias you show and I implore you not to follow Mr O'Donovan's example and turn into an all-Spectrum magazine. Don't desert us!

Jonathan Dale, Codner

Well-Wishers

It has come to our attention that you are considering starting an adventure helpline.

As the world's foremost authority on adventure gaming, we would like to extend to you our hand of friendship and say that if you require any help, advice or assistance then we would be very willing to help in any capacity that we are able.

We hope that this letter finds you well, and our best wishes for the future of this very worthwhile venture.

Simon Clarke, President, International Adventure Club

We appreciate this offer and encourage all readers to send in queries and suggestions

Send your letters to Letters, Home Computing Weekly, No 1 Golden Square, London W1R 3AB. Don't forget to name your computer — the best letter could win £5 worth of software. Got a problem with your micro? We'll soon be starting a queries page, so send your technical questions to Queries at the above address

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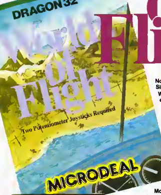

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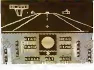

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